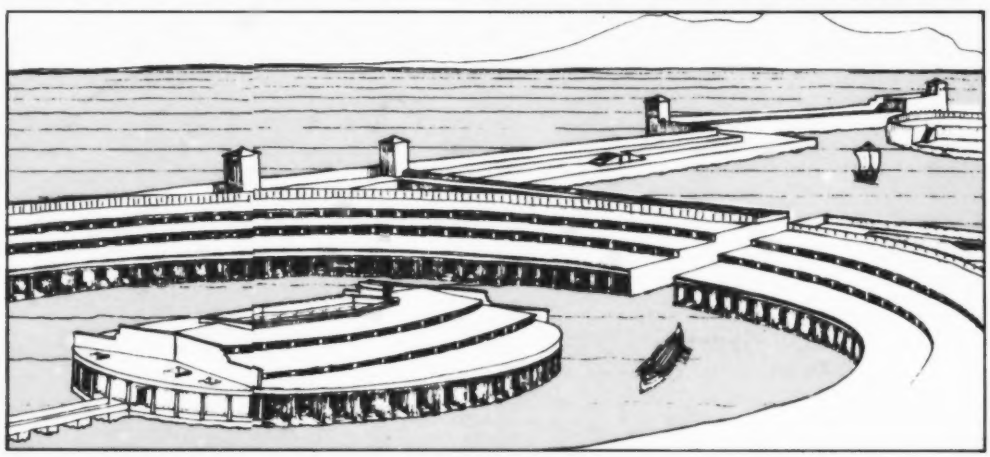
UNITED NATIONS CENTRE FOR HUMAN SETTLEMENTS

HABITAT NEWS



Volume 13
Number 1
April 1991

FOREWORD

UNCHS (Habitat) has, since the last issue of this newsletter, been preparing for the thirteenth session of the Commission on Human Settlements, which is to meet at Harare, Zimbabwe, from 29 April to 8 May 1991. This issue of UNCHS HABITAT NEWS offers background information on that session -- which will consider, *inter alia*, the Global Strategy for Shelter to the Year 2000 (GSS), plus two theme papers, one of which discusses the significance of human settlements and the GSS to the concept of sustainable development, and the other the use of energy in households and in the construction/building-materials industry with an emphasis on concern for "clean", sustainable development.

That concern also pervades the regular activities of the Centre. A report on the joint UNCHS (Habitat)/UNIDO Consultation on the Wood and Wood Products Industry, for example, reports on wood as an indefinitely renewable resource if properly handled, while another article in the same section deals with research on waste recycling and reuse in developing countries. Many other UNCHS activities are expressly connected with the GSS. Accordingly, this issue covers a range of events from a regional seminar on the Global Strategy to the preparation of a shelter strategy in the Congo.

In addition to ongoing activities of the Centre, events such as a World Congress on "Environment, health and lifestyle" and an international conference on "Devising enabling strategies for shelter" are covered, while the calendar of events mentions a variety of meetings. Thus the newsletter continues to offer its readers information on a range of habitat-related activities in addition to those of UNCHS (Habitat) itself.

Arcot Ramachandran

Dr. Arcot Ramachandran
Under-Secretary-General
Executive Director

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THIRTEENTH SESSION, COMMISSION ON HUMAN SETTLEMENTS

The thirteenth session of the Commission on Human Settlements, meeting at Harare, Zimbabwe from 29 April to 8 May 1991 will consider *inter alia* the Global Strategy for Shelter to the Year 2000, the significance of human settlements and the Global Strategy for Shelter to the Year 2000 to the concept of sustainable development, with particular emphasis on the relationships between economic development, improving living conditions of the poor and the planning and management of settlements -- and use of energy by households in construction and in production of building materials, with emphasis on the use of energy sources which are new and renewable and which minimize pollution problems. Summaries of the latter two items follow.

THE SIGNIFICANCE OF HUMAN SETTLEMENTS AND THE GLOBAL STRATEGY FOR SHELTER TO THE YEAR 2000 TO THE CONCEPT OF SUSTAINABLE DEVELOPMENT...: **Report of the Executive Director (HS/C/13/6)**

■ Summary

As a complement to document HS/13/14/Add.1, which describes sectoral and overall policies for human settlements in a sustainable-development context, this theme paper focuses on two main issues: (a) the sustainability of current settlement conditions and trends; and (b) the shelter issue and the significance of the Global Strategy for Shelter to the Year 2000 (GSS) for the goal of sustainable development. It argues that the enabling character of the Global Strategy and the specific recommendations for action it contains are useful tools for achieving development objectives in a sustainable context.

The Global Strategy is also examined in terms of its impact on ecological sustainability while acknowledging that the Global Strategy already includes the goal of ecologically sustainable development among its basic principles. The theme paper outlines some of the special aspects that should be borne in mind in the context of ecological sustainability. These aspects are elaborated in the annex to the document which contains a synopsis of environmental checkpoints for the preparation and review of national shelter strategies.

I. CONDITIONS AND TRENDS

In the last several decades there has been an increasing level of urbanization in most countries of the world. In developed countries, expansion of city services has been associated with the "urbanization" of suburban and rural areas. The extensive infrastructure facilities available to areas outside of cities have allowed for a large number of urban workers to live in the countryside. In developing countries, the population growth of urban areas has risen dramatically. The urban population of developing countries is now larger than the total population of Europe, North America, and Japan combined.

A. The scale of unmet needs

In all countries, there is a proportion of the population whose needs in regard to shelter, basic services, and livelihood are not met. The nature of unmet needs, the proportion of people affected, and the reasons why such needs go unmet vary greatly; hence, few generalizations can be made. One estimate suggests that in developing countries, as many as 2 billion people live in poverty, 9 out of 10 have no access to safe drinking water, most have no primary health-care services, and one child in four is of low birth weight.

Between a quarter and half of developing-country populations lack access to a preventive health-care system and live in poor-quality housing, with inadequate or no provision for piped water, sanitation and washing facilities.

B. The human environment

1. The house/workplace environment A safe and healthy human environment is ensured both by a supply of natural resources essential for health, (for instance, water) and by provisions to protect against pathogens or substances which can damage human health. Health problems in the house and workplace centre on exposure to pathogens or toxic substances such as chemicals and smoke or fumes from fires and stoves. A critical problem associated here is ensuring the safe supply and disposal of water. Hundreds of millions of urban dwellers and more than a billion rural dwellers have no alternative to using contaminated water or water the quality of which is not guaranteed. The quantity available and the price of water are factors inhibiting an adequate supply to residents, especially those in unauthorized settlements. Approximately two thirds of the people living in developing countries have no hygienic means to dispose of excreta and wastewaters; the resultant diseases rank among the chief causes of ill health, disablement and premature death. Such problems become amplified in over-crowded, cramped conditions.

2. The neighbourhood/village environment Environmental problems at the neighbourhood and village level centre on the large numbers of people who are exposed to pathogens and toxic substances. Here too, adequate access to and disposal of water is critical. Excreta and wastewater are often dumped in open spaces within residential areas. Another environmental problem at this level is the condition of the housing site -- whether it is on a steep hill, or on land prone to flooding or tidal inundation.

3. The city environment At the city scale, environmental problems primarily centre on air pollution, water pollution (caused by inadequate sewer systems and hazardous industrial waste disposal), and solid waste disposal.

C. Carrying capacities

The ability of ecosystems to sustain increasing human populations is becoming an area of greater attention and concern. Sustainable expansion of human populations in Central and South America is particularly problematic.[2] The problems are caused not only by an increase in total population, but also by a migration to the "rural frontier", e.g. to Amazonia. Some causes of the over-exploitation of natural resources are the shortage of foreign exchange, the demand for repayment of debts, deteriorating terms of trade, and protectionist barriers from large consumer markets.

D. Settlements and non-renewable resources

Per capita consumption of non-renewable resources, such as fossil fuels and metals, has reached unprecedented levels in the developed countries. In 1988, the per capita consumption of oil-equivalent in the richest countries was over 50 times that of sub-Saharan Africa. As economies of developing and developed countries continue to grow, demand for non-renewable resources will continue to increase substantially. Sustainable development will necessitate an increase in efficiency in the use of fossil fuels, the incorporation of material recovery programmes (such as recycling), and an increase in the durability of goods made from non-renewable resources.

The goal of the sustainable development of human settlements would be to support productive, stable and innovative economies using low levels of resources. For the member countries of the Organisation of Economic Co-operation and Development (OECD), this would mean a reduction in the consumption of non-renewable resources. (Although OECD countries contain only 15 per cent of the world's population, they account for about 80 per cent of the world's consumption of non-renewable resources.) Most cities of developing countries use less resources than cities in developed countries, have much lower per capita consumption levels, and a good record of re-use or recycling of waste materials. However, it cannot be assumed that this will remain constant, especially if anti-poverty programmes are successful and development proceeds in the decades ahead. This underscores the urgency of mapping out sustainable development paths now.

For much of the world's population, agriculture and forestry are critically linked to the use of renewable resources in settlements. Although agricultural productivity in developed countries is high in terms of output per person and, on occasion, output per hectare, it fails to meet sustainable development criteria in terms of maintaining soil quality, protecting groundwater quality, limiting fossil fuel use, and preserving wildlife. In developing countries, many alternatives to artificial fertilizers are used, and forestry products play an important role in providing materials for the construction of rural houses, fuel, and agricultural and household implements. Where forest exploitation is part of the local economy, deforestation can cause loss of employment and increasing difficulty in obtaining fuel. Adverse ecological effects include changes in run-off and subsequent soil erosion, increased risk of flooding, reduced capacity of hydro-electric stations, and ultimately, reduced agricultural productivity.

F. Human settlements and global life-support systems

One way human activities have affected the global life-support systems is by their possible contribution to ozone-layer depletion and global climatic change. This has been precipitated by the atmospheric emissions from the combustion of fossil fuels; industrial activities which produce chlorofluorocarbons (CFCs), carbon dioxide, methane, and nitrous oxide; and to some degree, deforestation (particularly when the forest products are burnt, leading to a transfer of carbon from the trees into the atmosphere).

Provisional agenda

1. Election of officers.
2. Credentials.
3. Adoption of the agenda and organization of work.
4. Activities of the United Nations Centre for Human Settlements (Habitat): progress report of the Executive Director.
5. Global Strategy for Shelter to the Year 2000.
6. (a) The significance of human settlements and the Global Strategy for Shelter to the Year 2000 to the concept of sustainable development, with particular emphasis on the relationships between economic development, improving living conditions of the poor and the planning and management of settlements;
   (b) Use of energy by households and in construction and in production of building materials, with emphasis on the use of energy sources which are new and renewable and which minimize pollution problems.
7. Work programme of the United Nations Centre for Human Settlements (Habitat) for the biennium 1992-1993.
8. Proposed budget of the United Nations Habitat and Human Settlements Foundation for the biennium 1992-1993.
9. Co-ordination matters.
   (a) Co-operation between the United Nations Centre for Human Settlements (Habitat) and the United Nations Environment Programme;
   (b) Co-operation with agencies and organizations within the United Nations system, intergovernmental organizations outside the United Nations system and non-governmental organizations;
   (c) Matters arising out of the resolutions of the major legislative organs of the United Nations and other intergovernmental bodies which are brought to the attention of the Commission.
10. Themes for the fourteenth and future sessions of the Commission.
11. Other matters.
12. Provisional agenda and other arrangements for the fourteenth session of the Commission.
13. Adoption of report of the session.
14. Closure of the session.

II. SETTLEMENTS AND SUSTAINABLE DEVELOPMENT

The essence of sustainable development is the satisfaction of present needs without compromising the ability of future generations to meet their needs. This definition is contained in the report of the World Commission on Environment and Development and in the *Environmental Perspective to the Year 2000* report adopted by the General Assembly of the United Nations. In this context, "needs" refers to the essential needs of people -- those needs the satisfaction of which is fundamental to allowing all human beings to lead a dignified, healthy, and productive existence. Human settlements -- in their organization, structure, services, and opportunities -- are crucial in their significance in meeting these human needs.

The provision of shelter and other human settlements components on the part of State and local authorities is becoming increasingly difficult. In most developing countries where the State has, until now, assumed a providing role, structural-adjustment policies have led to sharp decreases in social expenditures, with dramatic and direct consequences on governmental expenditures for such services as shelter, transport, health and education. The potential for the self-help provisions of shelter, infrastructure, and services is also being reduced for the urban and rural poor, owing to population growth, conflicting demands for and rising costs of land and building materials, constraints to the development of the informal sector, and reduced income and employment opportunities.

In the developed countries, although the levels and scale of poverty are not as severe as those found in the developing countries, relative poverty is a growing problem. Increasing costs of health, housing, education, energy, and transport services have increased the strains on significant minorities of the population in meeting their basic settlement-related needs.

As market forces continue to play an increasingly important role, addressing the "needs-satisfaction" component of sustainable development depends on the ability of national economies to accelerate economic growth, to see that this growth occurs in such a way that the incomes of the least-privileged groups are sufficient to satisfy the demand for increasingly costly essential needs, and to generate a surplus needed to accommodate the basic needs of the poorest of the poor. Unless these conditions are met, sustainable development cannot be achieved. Human settlements policies can help to meet these needs in an equitable, affordable, and cost-effective way while promoting and sustaining economic growth and improving the quality of life. A colossal aggregate amount of physical, financial, and human resources is employed in the planning, development, maintenance, and operation of human settlements. Policies pursued in the context of environment and development, provide a tremendous potential as part of a global development agenda.

Increasing demands on environmental resources require human-settlements patterns that minimize resource-demand and pollution through systems of incentives and disincentives. This may include, *inter alia*, pricing policies on fuels, increased taxation on private automobiles, and the provision of attractive alternatives to individual transport.

In high- and middle-income countries, though, the most significant contribution that human settlements can make to sustainability is the upgrading and renovation of the existing settlement fabric in a resource-conserving way, e.g., by adopting efficient heating and cooling systems. In most developing countries, settlements face the challenge of intense population growth, inadequate resources, poor development controls and skyrocketing needs for shelter and employment.

Yet these very **cities are the places in the developing countries where environmental problems can best be controlled.** The most important issue is the relationship between ecological sustainability and the living and working conditions of the poor in such countries. The poor are efficient resource users, savers and recyclers and -- given the chance -- can show the way to resource-conserving lifestyles, if only governments take the lead in making basic infrastructural investments which will unlock the potential for community initiatives.

Take, for example, the issue of fuel. Fuelwood and charcoal are used because alternative fuels (kerosene or natural gas) are either unavailable or too expensive. Few governments have considered the enormous advantages that could accrue by adjusting price policies on alternative cooking fuels through targeted and appropriate subsidies. The same applies to informal urban settlements. The only alternative for the urban poor is precarious settlement in degraded or dangerous locations of low market value, where the risk of immediate displacement is low. Insecurity of tenure and the related disinclination to provide basic infrastructure and services determine the "environmental hazards" associated with so many informal urban settlements in the developing countries.

Prospects for environmental improvement do not lie in environmental-protection measures -- which would only have the effect of pushing the poor further and further away from their sources of employment -- but in responsive urban management aimed at regularizing consolidated and non-hazardous informal settlements and at providing safe alternatives to those which cannot be secured.

III. THE SIGNIFICANCE OF THE GLOBAL STRATEGY FOR SHELTER TO THE CONCEPT OF SUSTAINABLE DEVELOPMENT

In December 1988 the General Assembly endorsed the proposal of the Commission on Human Settlements to launch the Global Strategy for Shelter to the Year 2000. It includes emphasis on an enabling approach, integrated national shelter strategies, and ecologically sustainable development.

A. The enabling approach

The right to adequate shelter is universally recognized. Many governments, however, have realized that there are serious limitations to the quantity, acceptability and appropriateness of housing that they can provide directly. The adoption of the Global Strategy formalized the shift to an enabling approach -- facilitating and guiding the actions of all present and potential participants in producing or improving shelter. It implies not a reduction of governmental responsibility but rather a reallocation of public activities and human, physical and financial resources.

The enabling approach has economic, social and ecological dimensions. By co-ordinating and hence improving the efficiency of the combined efforts of all actors in the shelter sector, it may directly address the economic dimension. Enablement also has a strong social aspect; there is a growing recognition that participation and development are inseparable, since popular priorities and demands greatly influence the

development of effective and flexible enablement.

B. Integrated national shelter strategies

The goal of the GSS -- adequate shelter for all by the year 2000 -- is extremely ambitious, and implies integrated national shelter strategies based on an enabling approach. The shelter sector will thus be the responsibility not of specialized housing agencies, but of a multisectoral combination of governmental and non-governmental bodies.

The Global Strategy also provides, by means of integrated national shelter strategies, a considerable number of potential instruments for the prevention of ecologically undesirable developments.

C. The Global Strategy for Shelter and ecologically sustainable development

The Global Strategy includes achieving ecologically sustainable development among its basic principles:

> "Since [the Global Strategy] leads to the full mobilization of all potential indigenous resources, a shelter strategy based on an enabling approach greatly contributes to sustainable development. In order to sustain this impact over the long term, the management of these resources must be ecologically sound. This applies, for instance, to guiding the use of land so that settlements grow in such a way that natural resources are protected and conserved; that settlements are not threatened by floods, erosion or other natural disasters and that specific pollution problems are not created. Also, the exploitation of natural resources for energy or raw materials production should be done in such a way that the natural balance is not disturbed." 3/

The move by governments towards the enabling approach will be a critical step in achieving ecologically sustainable development. The integrated national-shelter-strategy approach provides them with an effective instrument for co-ordinating the actions of all participants in the shelter sector and of agencies responsible for managing physical resources.

With regard to land use, for example, sustainable goals might include the limitation of settlement encroachment on precarious lands, such as natural landscapes with important cultural, ecological or recreational value. Of particular importance, in view of their ecological sensitivity, are coastal areas and small island States.

The contribution of the GSS to ecological sustainability can be enhanced by ensuring that the enabling framework of policies, actions and institutions on which its implementation depends also promotes and encourages an efficient use of non-renewable resources while encouraging the full use of renewable resources. For example, the building materials sector could be stimulated, through incentives and disincentives, to reduce reliance on high-energy-demanding building materials and those damaging to health. Another example might be increasing densities in residential and commercial areas, resulting in a reduced demand for land and reduced intra-settlement transport, thus cutting fuel consumption, limiting pollution and increasing settlement amenity. (A checklist for the preparation and review of national shelter strategies is annexed to the paper; it goes into aspects relevant to an ecologically-sensitive approach to meeting national shelter needs.)

IV. POINTS FOR DISCUSSION

One of the nine priority areas that the United Nations Conference on Environment and Development is required to address is the **improvement of the living and working environment of the poor in urban slums and rural areas**. During its first session, the Preparatory Committee for the Conference invited the Commission on Human Settlements, when considering the theme "Human settlements and sustainable development" at its thirteenth session, to pay special attention to the mandate of the Conference with particular reference to that concern, in order to make a substantive contribution to the preparatory process for the Conference. The next session of the Preparatory Committee, after the thirteenth Commission session, will be held in August 1991 -- providing an ideal opportunity for the Commission to respond to that request at a stage when the Committee might still be able to incorporate such a contribution in its agenda and, eventually, in the final documentation it is expected to prepare for the Conference.

Therefore the Commission might wish to consider the following points:

1. Do the theme paper (HS/C/13/14/Add.1) and the report constitute a suitable response to the above request?

2. Which sections or points from the theme paper and the report can be considered particularly effective in impressing upon the Conference's preparatory process the value and importance of improving the living and working environment of the poor? In which way should they be clarified or expanded?

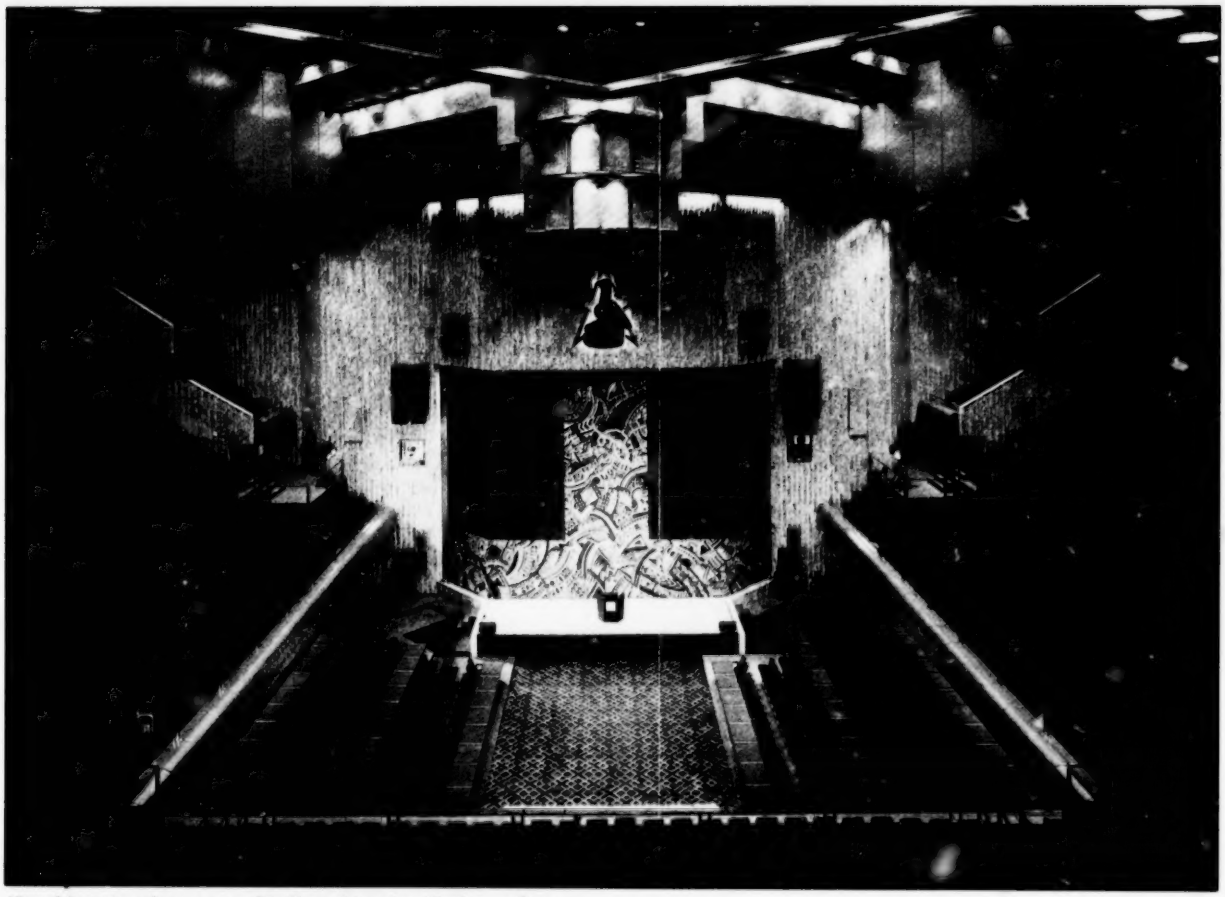
3. Are there any other points which should be made in order to strengthen and further qualify the Commission's presentation?

FOOTNOTES

1. Michael Jamcloes, "More than a billion....", in *World Health*, (Geneva, World Health Organization, March 1990).

2. Di Pace, Maria J., Sergio Federovisky, Jorge E. Hardoy, Jorge H. Morello and Alfredo Stein, "Human settlements and sustainable development -- the Latin American case", paper presented to the Colloquium on Human Settlements and Sustainable Development, University of Toronto, 1990.

3. *The Global Strategy for Shelter to the Year 2000* (Nairobi, United Nations Centre for Human Settlements, 1990), para.16.



View of the main conference room of the Harare International Conference Centre.

USE OF ENERGY BY HOUSEHOLDS AND IN CONSTRUCTION AND IN PRODUCTION OF BUILDING MATERIALS: Report of the Executive Director (HS/C/13/7)

SUMMARY

This paper is divided into two parts: the first focuses on strategies for improving energy efficiency and sustainable energy availability in urban and rural households, especially through a mix of decentralized and integrated energy systems and enhanced use of renewable-energy technologies in developing countries and use of efficient technologies and energy conservation in developed countries; the second focuses on strategies for improving energy-use efficiency and for reducing pollution problems in construction and the production of building materials, especially through efficient use of energy in building construction and optimizing the designs of buildings and improving energy efficiency in building-materials production. The paper formulates proposals for national and international actions to improve energy-use efficiency in the household, construction and building-materials sectors.

Most developing countries use biomass as their main source of household energy: however, this is leading to environmental degradation. In developed countries, where residential energy demand constitutes an important proportion of national energy demand, energy availability in the long term depends on the development of efficient and environmentally sound new and renewable energy technologies which will require significant policy changes and substantial financial inputs. The critical relationship between energy and human settlements has often been ignored in building-material production technologies and construction techniques. In order to increase the supply of shelter and, at the same time, increase global energy availability, it is essential to lower the energy intensity of building materials worldwide and to increase use of low-energy indigenous materials and of recycled materials and waste.

The Commission might wish to deliberate on possible actions by national governments and the international community (a) to enhance the use of renewable-energy technologies and energy-efficient appliances and equipment, and to reduce the negative environmental impact of energy use in the domestic sector, and (b) to increase use of low-energy and recycled materials in construction, to improve energy-intensive building-materials production technology, to increase the use of renewable energy sources in the production of building materials and to reduce pollution by the construction industry.

■ PART ONE: ENERGY USE BY HOUSEHOLDS

Energy has long been recognized as an essential component in meeting basic human needs, in stimulating and supporting economic growth and in enhancing the quality of life in human settlements. Indeed, economic development consists largely of harnessing increasing amounts of energy for productive purposes -- either by increasing the amount of energy tapped or by making more efficient use of available resource

In developed countries, residential energy demands constitutes between 16 and 33 per cent of overall primary energy consumption. In developing countries, however, the bulk of the population survives on non-commercial energy sources such as fuelwood and animal dung, which lead to the aggravation of poverty and environmental degradation.

In the long term, energy availability depends on the development and large-scale applicability of efficient and environmentally sound forms of new and renewable energy technologies. This in turn requires commercialization of already-available techniques and a closing of the energy-efficiency gap between practice and the best technologies in developed countries.

I. ENERGY-USE PATTERNS IN DEVELOPING COUNTRIES

Per capita commercial energy use and per capita income are generally closely related.

A. Rural areas

In rural areas of the developing countries, the household sector consumes the greatest amount of rural energy, primarily in the form of fuelwood for cooking. A survey in northern India carried out in 1976 noted use of a variety of fuels, commercial, non-commercial and animate.1/ Also noted were an increase in average consumption with increased income, and cooking as the main use of fuel. This study is probably applicable to the South Asian subcontinent and to Asia as a whole. In Africa as in Asia, the main share of energy supply is non-commercial, although in this case animal wastes are not an important energy source. Estimates of rural energy-consumption patterns for Brazil, Colombia, Mexico and Peru indicate that fuelwood constitutes the main source of primary energy in these Latin American countries. Although rural electrification has been promoted as a vehicle of economic development, a World Bank study[2] indicates that the rural poor are often unable to use electricity.

B. Urban areas

Though high-income people may follow energy-consumption patterns of the industrialized world, for the overwhelming majority of the population in urban areas of developing countries, energy-use patterns are similar to those in rural areas. This can be seen in table 1, which shows domestic energy consumption by household in 1976 for Mexico City and Nairobi.

C. Consequences of existing household-energy patterns

Fuel use in developing countries follows an "energy ladder"[3] which people move up as incomes rise, using progressively more expensive but cleaner (at the local level) and more convenient fuels. This often leaves rural poor women at the bottom. Studies of smoke pollution in Gujarat , India, for example showed that in the rainy season, when smoke does not exit through the thatched roof, many women inhale in one day the equivalent of 20 packs of cigarettes -- a dose 100 times worse than the level recommended by the World Health Organization as acceptable for general public safety.[4] In cities of the developing countries, however, air pollution can also be quite high, especially with coal burning. Again the health and environmental impacts are a concern.

D. An overview of the potential role of renewable energy technologies for human settlements development

At the present level of development, renewable sources of energy play a limited role globally, but could be important at local-settlement level. The most promising seem to be solar, biomass, wind, small-scale hydropower and, possibly, hydrogen.[5]

1.Solar Under solar power fall water-heating systems, small-scale solar stills, solar drying units and cooling through solar energy. Photovoltaic (PV) power could be used in both rural and urban settlements. PV technologies are more economical than grid or diesel-generated electricity.

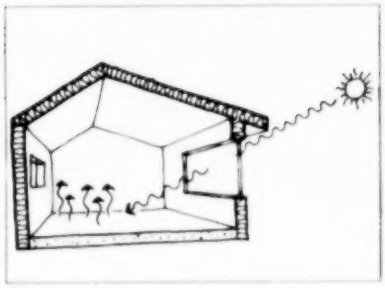
2.Biomass Technological options for the effective use of biomass resources are avail-

Table 1. Domestic energy consumption per household in 1976 for Mexico City and Nairobi

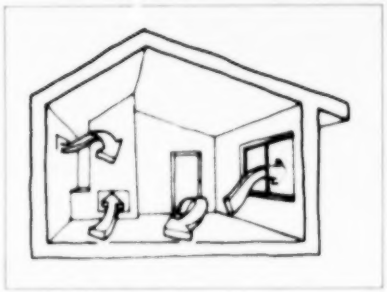
(percentage)

Functional use	Annual income				
	Below $1000	$1000 -$2500	$2500 -$5000	$5000 -$10,000	Above $10,000
Mexico City:					
Cooking and lighting	52.7	50.5	47.2	34.1	34.0
Water heating	38.1	28.3	18.9	27.1	30.9
Appliances	9.2	21.1	29.7	34.2	30.7
Heating	-	-	4.2	4.6	4.4
Percentage of total domestic energyconsumed	11.7	14.4	16.9	26.6	30.4
Percentage of total transport energyconsumed	1.3	5.8	14.5	30.9	47.5
Nairobi:					
Cooking and lighting	100.0	100.0	33.0	33.9	42.7
Water heating	-	-	38.5	39.1	30.6
Appliances	-	-	28.5	27.0	26.7
Percentage of total domestic energy consumed	7.4	7.2	17.8	27.5	40.1
Percentage of total transport energy consumed	0.5	2.4	12.5	34.6	50.0

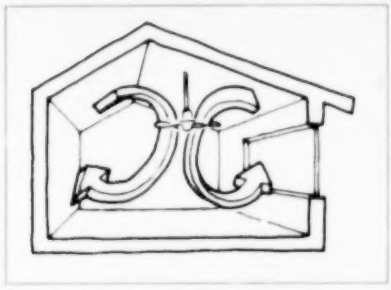
Source: McGranahaw, Gordon, and Manual Taylor, *Urban Energy Use Patterns in Developing Countries: Preliminary Studies for Mexico City and Nairobi* (Stony Brook, State University of New York, 1978).



A concrete floor slab used in winter to store the sun's incoming energy



Possible infiltration paths



Use of ceiling fans to create cooling air movement in summer, and in winter to shift warm air near the ceiling down to where the room's occupants are

able. Biogasification, based on anaerobic fermentation, is an extremely versatile and mature technology for converting low-grade biomass into gas fuel, and has been adopted on a mass scale in China and India.

3.Wind Wind energy is best used when interconnected with other power sources, or where the end products can be stored. Wind-generated electricity is cost-competitive with diesel generation in specialized and remote applications, where battery-storage costs are not excessive.

4.Small-scale hydropower Both mini- and micro-hydro power stations can be useful in many developing countries. Costs are competitive with decentralized diesel generation, as demonstrated by studies in Nepal, Peru and the United Republic of Tanzania.

5. Hydrogen Hydrogen, a clean, renewable energy source, would become viable when mass production would bring the cost of a fuel cell down.

II. ENERGY-USE PATTERNS IN DEVELOPED COUNTRIES

The residential sector accounts for nearly 25 per cent of energy use in most member countries of the Organisation of Economic Co-operation for Development .[6] Over 70 per cent of Europe is covered with central heating, and water heating is provided in nearly every house.[7] Such houses in developed countries often maintain a high degree of fuel flexibility. What are the consequences of energy-use patterns? Most households have made substantial reductions in energy use since 1973, energy conservation occurring primarily in space heating and, to a lesser extent, through use of efficient electrical appliances. These reductions offset most or all of the growth in energy demand resulting from demographic and income changes.[8] Yet the level of energy provided to consumers in the USSR and Eastern Europe for houses is expected to rise through economic restructuring and improvement of living standards, thus, probably, offsetting increased energy efficiency. Another factor to be kept in mind is the contribution of such energy-use patterns to the green-house gas emissions. One report shows the United States of America, the USSR and member countries of the European Community contributing more than half of the net emissions in 1987 -- with households being responsible for the main part of those emissions.[9]

III. CONSTRAINTS AND BARRIERS

A. Constraints and barriers to changing energy-use patterns

The most widely observed barrier to more efficient energy use is the low price of energy. Another is the lack of information on efficient energy use and on choice of efficient equipment. A very subtle barrier is related to the consumer discount rate: if the consumer places a low value on future savings, there is little incentive for investing today for savings in the future. The last barrier is that of technological sophistication; though cheap products can be produced, they are sometimes complicated to run.

Households, especially rural ones, in developing countries face all the barriers to changing energy patterns that are faced elsewhere, but have fewer resources to overcome them. Unfortunately, energy efficiency, whatever the cost of energy, appears lowest for those least able to afford inefficiency.

B. Constraints and barriers to the use of new and renewable sources of energy

Renewable-energy technologies designed and developed in advanced countries are not often compatible with the levels of managerial and manufacturing skills available in developing countries. Other constraints include a lack of information, e.g. on realistic estimates of costs and on engineering, managerial, social and fiscal aspects. A lack of financial resources at both the individual and governmental level is another barrier. Co-ordination is needed between various governmental agencies, as is a positive attitude of policy-makers. The main constraint is the lack of easy access to information and experience available in advanced countries and the absence of an adequate mechanism for technology transfer.

IV. STRATEGIES FOR OPTIMIZING USE OF ENERGY BY HOUSEHOLDS

A. Strategies for improving energy availability and energy efficiency in households in developing countries

Solution of the energy problems of human settlements requires revised and innovative strategies emphasizing the rational use of non-commercial alternative energy resources and adoption of new technologies aimed at modernizing the use of traditional energy sources. These will have to be tailored to the specific conditions of each settlement.

The woodfuel problem, for example, must be tackled in a holistic manner, with an eclectic approach to wood-resource management. The first step in new-stove technology is to involve the women users to improve the traditional stoves. Rural women in Burkina Faso were shown how to build a clay shell for the traditional three-stone stove, thus improving its efficiency by 40 to 50 per cent.[10] Similarly for the urban poor. In East Africa the usual charcoal-burning metal stove has been improved by using a ceramic liner adapted from the Thai bucket

stove, leading to a savings in charcoal of from 25 to 50 per cent.

Also required are surveys and data collection on energy requirements and sources, the involvement of user communities in proposed changes in energy use, decentralized or integrated energy systems (proved successful in India, Pakistan, and Sri Lanka), the establishment of training centres geared to the needs of specific energy sources, and the promotion of local equipment manufacture.

Financing is another issue, for only Brazil, China and India among developing countries have been able to undertake systematic activities related to renewable-energy technologies. International assistance both bilateral and multilateral has enhanced programmes in Argentina, Brazil, Nepal, Senegal and the United Republic of Tanzania, to cite a few examples.

B. Strategies for improving energy efficiency and reducing energy demands by households in developed countries

Improved energy efficiency, which had an impact on energy use by households between 1973 and 1987, appears to depend on future forces that affect residential energy prices, the benefits of efficiency, and public policy. Such policies are already being put in place or considered. For example, the United States of America established National Appliance Efficiency Standards in 1990. Other strategies include the co-generation of electricity and heat (as in the Scandinavian countries and Switzerland) and the use of passive solar systems. [11] Here too, surveys and data collection are needed.

V. ISSUES RELATING TO INTERNATIONAL CO-OPERATION

International co-operation will be required in building institutions to manage renewable-energy programmes, providing capital, facilitating the transfer of technologies and supporting research and development. This requires initiative and resolve at the highest levels, in both government and industry. Dissemination of information through international networks, such as the Biomass Users Network [12] is a good idea. Another of the points mentioned is the need for technical co-operation between developing countries themselves.

VI. POINTS FOR DISCUSSION

The theme paper then sets forth half a dozen points for discussion on issues arising out of the previous text.

■ PART TWO: ENERGY USE IN THE BUILDING MATERIALS AND CONSTRUCTION SECTORS

Recent developments in the international energy supply and cost system have highlighted the critical relationship between energy and human settlements and the urgent need to examine both energy and human settlements planning in the context of national development goals. One of the means to help the poor is to provide low-cost construction, [13] particularly through low-energy-intensive indigenous building materials.

I. ENERGY USE IN BUILDING CONSTRUCTION

The choice of low-energy materials is one means of energy conservation. The ubiquitous reinforced concrete can save energy with regard both to the reinforcing material and the cement. The designer's choice of high-energy intensive materials can raise the cost of a house by as much as 60 per cent. In developing countries the materials that have the lowest gross energy requirements (GERs) are often traditional building materials the durability of which can be modified with little additional cost or energy. Governments, however, needs to take the lead in promotion of low-energy materials and methods. The industrialized countries, on their part, are consuming non-renewable resources in the construction industries at an unsustainable pace. Considerable amounts of energy could be conserved through available heat-recovery methods and by switching to alternative timber sources and materials and the recycling of used materials and wastes. The efficient management of on-site processes, transport and labour is another approach to energy conservation. The productivity of labour-intensive processes can also be increased with the introduction of simple low-cost technologies.

II. ENERGY USE IN THE PRODUCTION OF BUILDING MATERIALS

The materials industries, of which building materials comprise a large proportion, are generally energy-intensive and have been shown to account for over 20 per cent of world fuel consumption. [14] Substantial energy savings can be had by using energy-efficient technologies, while transport costs can be reduced by using building materials based on primarily local raw materials.

In many developing countries, reductions in energy consumption are possible through the use of new manufacturing processes without necessarily increasing the scale of production. The fuels used in manufacturing processes vary, with high-energy materials dependent on high-grade fuels, medium-energy materials on low-grade fuels, and low-energy materials on little purchased energy, but often significant amounts of human or animal labour.

Cement manufacture is an energy-intensive industry; the energy cost constitutes approximately 25 per cent of the price of the finished cement. A 1980 study on the cement industry in the United Kingdom [15] noted that combined energy-saving activities would amount to about 45 to 50 per cent of all energy currently used in the cement industry. For bricks too, most of the energy used in their manufacture is required to fire the bricks -- typically more than 95 per cent of all energy use. As a recent study of the brick industry in Delhi [16] showed, variations in kiln design can yield substantial energy savings. Turning to soil construction, in Brazil, the soil blocks produced in small-scale industries are competitively priced and widely used.

It is generally desirable to use primary energy resources in the manufacture of building materials, whenever possible, and reserve electricity for applications where it has special advantages. Waste engine oil, which is normally discarded and becomes a source of ground pollution, can, equally, be a useful fuel.

III. POLLUTION PROBLEMS CAUSED BY PRESENT-DAY USE OF ENERGY IN CONSTRUCTION AND IN PRODUCTION OF BUILDING MATERIALS

Pollution in construction occurs through site operations and transport as well as the actual production of the materials themselves. Site operations have a considerable impact on the local environment during the construction period. Pollution from energy use in transport can be minimized by the use of local materials. Environmental concerns have led to the imposition of standards for

permissible emissions in the production of building materials. In 1979, approximately 8 per cent of the cost of clean air to American industry was attributed to the quarrying and construction sector,[17] from producers of cement, lime and asphalt.

IV. STRATEGIES FOR IMPROVING ENERGY-USE EFFICIENCY IN CONSTRUCTION AND IN THE PRODUCTION OF BUILDING MATERIALS

Several strategies are recommended:

- Optimize the designs of buildings;
- Improve energy efficiency in building-materials production;
- Improve site management of energy efficiency in construction.

V. A FRAMEWORK FOR NATIONAL ACTION

Wide-ranging and concerted action will be required to secure the use of less energy-intensive building materials, increase energy efficiency in on-site construction and pollution control. The foremost need is to stimulate an **energy-consciousness** in the construction industry and to demonstrate to all concerned the economic and financial benefits of energy saving in all construction-related activities. Fiscal policies could provide necessary incentives to the construction industry to adopt energy-conserving programmes, e.g. through refunds and subsidies. Energy audits and the promotion of appropriate standards, specifications and building regulations are further steps to be taken.

VI. ISSUES RELATING TO INTERNATIONAL CO-OPERATION

The international community can assist developing countries in capacity-building at national and industry levels through the collection of data, provision of appropriate technologies, and of technical assistance, and the promotion of multilateral funding for expanding research and development efforts. UNCHS (Habitat) would undertake a co-ordinating function in collecting, collating and disseminating to member countries the successful cases of transfer diffusion, and development of appropriate technologies related to energy efficiency and pollution control in the construction sector, again with the support of the international community.

VII. POINTS FOR DISCUSSION

The second half of this theme paper concludes with points for discussion by the Commission on energy efficiency and pollution control.

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ZIMBABWE

Zimbabwe, which provides the venue for the thirteenth session of the Commission on Human Settlements, has since its inception been closely involved with UNCHS (Habitat). Here we take a look at one of the first such projects before going on to mention a pipeline project. Readers may also wish to refer to the November 1990 issue of the *UNCHS (Habitat) Shelter Bulletin* for an update on the shelter situation in Zimbabwe.

■ Then...

Ten days after the achievement of Independence in 1980, the Government of Zimbabwe requested assistance from UNCHS (Habitat) and the United Nations Development Programme, and project ZIM/80/001 was immediately prepared. As a result of that project, the planning, programming and implementation of two highly innovative low-income housing schemes, in Kwekwe and Gutu, was launched in 1982 as part of ZIM/81/004, "Low-income housing pilot projects". ZIM/81/004 still serves as a fine example of the facilitating approach central to the Global Strategy for Shelter, making use of building societies to provide low-income housing. These pilot projects also provide good examples of community participation, particularly on the part of women.

Perhaps the project's most significant innovation was the assistance provided in designing an **innovative joint public/private sector partnership** to establish a finance mechanism for low-income housing. This initiative involved one of Zimbabwe's three private-sector building societies (which only had previous experience in financing upper-income housing). The public sector provided the capital cost for land and infrastructure development through a grant from the local currency proceeds of the United States Agency for International Development/Government of Zimbabwe Commodity Import Programme, while the Beverley Building Society provided the capital for building-material loans on a matching dollar-for-dollar basis. UNDP contributed nearly $US 1 million.

UNCHS (Habitat) designed the project with the Government and private-sector institutions involved, and provided technical

assistance in support of the project's three immediate objectives:

- Formulating new planning, design and construction solutions affordable to the low-income population;
- Re-organizing the sector to take maximum advantage of community participation and aided self-help so as to involve the beneficiaries at each step of the construction process; and
- Establishing new mechanisms for existing private-sector financial institutions (building societies) geared to mobilizing household savings and to extending access to credit to low-income households.

Over a three-year period, all those objectives were realized. Over 1000 serviced plots (300m^2) in Kwekwe and 200 serviced plots (400m2) in Gutu were developed in accordance with affordable planning and infrastructure-design standards. Building-materials stores for project beneficiaries were set up, and technical assistance was provided to them throughout the construction process. Community participation had very positive impacts on the design, building and finance of the project. Women in particular played an active role in the management of credit facilities and also in construction. (Criteria for house allocation considered heads of household regardless of gender.) And, as we have seen, a private-sector financial institution participated for the first time within the framework of a housing programme for low-income households.

■ And now

Since the completion of that project, Zimbabwe's building societies have become increasingly involved in low-income housing programmes. The Government of Zimbabwe facilitated this expansion by providing an incentive in the form of allowing the building societies to offer tax-free shares to the public. In 1986 the Government introduced 9 per cent tax-free paid-up permanent shares (PUPS), with 25 per cent of the money so generated going to low-cost housing.

Given this impetus, building societies are now a major contributor to low-cost housing. For example, a total of 14,000 low-income units were funded by them in the 1987-1989 period, with a total investment of over $Z100 million ($US50 million).

Government of Zimbabwe/UNCHS (Habitat) co-operation continues on a number of fronts. The **national physical development strategy** project, now in the pipeline, is but the latest effort. The Government has stated that an approach to national physical planning should be developed to contribute to the preparation of medium-term national development policy and thereby to the achievement of national development objectives. The "First Five Year National Development Plan" states that a national physical plan will be prepared to provide the spatial framework for the economic and social programmes contained in that Plan.

This project, in its draft form, has as its main objectives to:

- Provide the spatial framework for national economic planning,
- Strengthen links between levels of government and government agencies to make such planning more effective,
- Broaden the scope of physical planning in Zimbabwe, and
- Strengthen inter-sectoral co-ordination of development within that framework.

In drafting the project document, a number **of prior and ongoing projects** were taken into consideration. These include

- several UNDP projects which have been supporting the Ministry of Finance, Economic Planning and Development in preparing the Transitional Economic Development Plan and the First Economic Development Plan;
- an Overseas Development Administration project assisting in the development of provincial and district planning, programming and budgeting systems;
- UNDP/World Bank/UNCHS (Habitat) inter-regional project INT/86/006 "Support programme for urban management" -- under which a regional initiative for East Africa would have the Programme Management Unit based at Harare, in an effort to strengthen the capabilities of local authorities;

UNCHS (Habitat)/Government of Finland co-operation on the formulation of a national shelter strategy (NSS) for Zimbabwe, which is being implemented in two phases (ZIM/88/F01 and ZIM/89/F02). In addition to assisting the Ministry of Public Construction and National Housing to formulate the NSS and develop the capacity of institutions to undertake NSS development, it has focussed on the need to review existing policies and standards.

Women involved in ZIM/81/004

UNCHS (Habitat) ACTIVITIES

Tokyo Declaration follow-up

■ Regional Committee for Latin America and the Caribbean

The Parliamentary Group of Latin America and the Caribbean established itself as a Regional Committee for Latin America and the Caribbean in order to collaborate with the United Nations Commission on Human Settlements in following up on the Global Strategy for Shelter to the Year 2000 and implementing the recommendations contained in the Tokyo Declaration (see previous issue of UNCHS HABITAT NEWS).

According to the agreement of 28 September 1990, periodic meetings will be held in various countries of the region to discuss implementation and to exchange legislative experiences related to human settlements -- beginning in Guatemala in January 1991 at a preparatory meeting for the World Conference on Housing to be held in Costa Rica the same month. They appealed to UNCHS (Habitat) for technical and logistic support for the activities to be formulated then. In addition, they decided to promote the Tokyo Declaration in their own countries. Those signing the declaration represented mostly Parliamentarians from Argentina, Bolivia, Colombia, Costa Rica, Guatemala, Honduras, the Netherlands, and the Netherlands Antilles.

■ Uganda Minister urges follow-up action

The Minister of Housing and Urban Development of the Government of Uganda on his return to that country from the Global Parliamentarians' Conference, which he had attended as Minister and as a Member of the National Resistance Council (NRC), introduced the Tokyo Declaration to the NRC (Parliament). Noting the duty of Parliamentarians all over the world to assist in implementing the Programme of Action at both the national and international level, H.E. Mr. John S. Kizito asked those interested to join him in forming a committee of the NRC "to keep monitoring, advising and putting forward programmes for the improvement of human settlements in Uganda".

■ USSR League of Parliamentarians on Habitat being formed

In the Union of Soviet Socialist Republics (USSR), a League of Parliamentarians on Habitat is being formed. The documentation has already been prepared, and a meeting is planned for later in 1991. The Head of a recent USSR delegation to UNCHS (Habitat), H.E. Mr. E. Rozanov, invited Mr. S. Kuyama, in his capacity as UNCHS (Habitat) co-ordinator of the Global Parliamentarians meetings, to visit the USSR, meet with Soviet Parliamentarians and attend the organizing meeting of the proposed League. As we go to press the exact date had not been set.

USSR and UNCHS (Habitat) agree on further co-operation in housing and human settlements

The Union of Soviet Socialist Republics (USSR) and UNCHS (Habitat) on 22 February 1991, reviewed their ongoing 1990 activities and agreed to continue and strengthen their co-operation during 1991.

H.E. Mr. E.G. Rozanov, Minister of State and Chairman of the State Committee for Architecture and Town Planning (Goscomarchitecture), and Dr. Arcot Ramachandran, Executive Director of UNCHS (Habitat), signed a memorandum of understanding in Nairobi which identifies areas for further co-operation.

Among the fields of co-operation, UNCHS (Habitat) will provide technical assistance through a special project to the areas of the USSR affected by the Chernobyl nuclear-power-plant accident. An international training course on seismic mitigation in human settlements will be conducted jointly by the USSR and UNCHS (Habitat).

Moreover, the Centre will provide international expertise to review draft human-settlements legislation being formulated in the USSR before it goes for approval to the Soviet Parliament.

Both parties emphasized that the objectives of the 1990 programme of activities had been generally met. Two of the highlights were the Global Strategy for Shelter to the Year 2000 Subregional seminar for Eastern European countries, held at Moscow from 3 to 8 September 1990, and an international workshop on technology transfer for the production of indigenous building material, held at Riga, Latvian SSR in May 1990.

Shown at the signing ceremony is H.E. Mr. E.G. Rozanov, together with UNCHS (Habitat) Executive Director, Dr. Arcot Ramachandran; Mr. S. Kuyama, Deputy Administrator, United Nations Habitat and Human Settlements Foundation; and Mr. D. Johal, Director, Office of Programme Co-ordination, UNCHS (Habitat).

International Seminar-cum-Workshop on Cost-Effective Building Materials and Technologies

An international Seminar-cum-Workshop on Cost-Effective Building Materials and Technologies was held from 10 to 21 December 1990 at Madras, India. Jointly organized by UNCHS (Habitat) in collaboration with the Housing and Urban Development Corporation (HUDCO), the Seminar-cum-Workshop:

- Identified the bottle-necks in adopting cost-effective and innovative building materials and systems;
- Arrived at action programmes for the effective use of appropriate building materials and technologies;
- Adopted a replicable technology transfer mechanism; and
- Evolved relevant strategies for producing building materials and components with suitable retail outlets.

Seventeen participants - building-material producers, promotion agencies and entrepreneurs, architects and engineers - from the following Sub-Saharan African countries participated: Botswana, Burundi, Ethiopia, Malawi, Mozambique, Uganda, the United Republic of Tanzania and Zimbabwe. UNCHS (Habitat) was represented by Mr. D. Biau, Unit Co-ordinator, Technical Co-operation Division, who presented an address on behalf of the Executive Director of UNCHS (Habitat), (see box) and by Mr. P.W. Bouda, Senior Consultant.

The Global Strategy for Shelter to the Year 2000, as evolved by UNCHS (Habitat) and national governments, emphasizes the need for best use of scarce and limited resources of land, finance and building materials, with a view to reaching the maximum number of people with minimum resource inputs.

In the Seminar-cum-Workshop, the relevance of cost effective building materials and technologies was brought to the forefront:

- Building material accounts for nearly 60 to 70 per cent of the cost of house construction. It is therefore imperative to use appropriate and cost-effective building materials and technologies with labour-intensive applications in developing and less-developed countries.
- Using local resources, local materials and local labour is advantageous from the point of large-scale replicability in both rural and urban contexts.
- Least energy-intensive building materials are another important dimension that need consideration from environmental, ecological and energy standpoints.
- Materials which are considered "wastes" (flyash, red mud, phosphogypsum, blast furnace slag, etc.) can be transformed into "wealth" for building materials.
- Agricultural wastes can also be harnessed as "resources", i.e. straw, sisal, rice husk, wood shavings, etc.
- Transfer of technology from laboratory to land needs special attention and consideration. One way to do this is through the wider dissemination of information on the Building Centre movement, started at the grassroots level for technology transfer, training and skill upgrading for construction artisans (masons, carpenters, etc.).
- Production of building materials and components at the local, small and medium scale industry levels deserves greater attention and increased consideration from governments, entrepreneurs, financial institutions, action groups and individuals.

Portuguese-speaking Countries hold GSS Seminar

Portugal hosted the subregional seminar on the Global Strategy for Shelter to the Year 2000 (GSS) for the Portuguese-speaking countries of Africa at Lisbon from 21 to 25 January 1991. It was jointly organized by UNCHS (Habitat) and the Government of Portugal.

Participating countries were Angola, Cape Verde, Guinea Bissau, Mozambique, Portugal and Sao Tome and Principe. Brazil and Greece attended as observers. A non-governmental organization (NGO), Citi-Habitat from Cape Verde, also took an active role. Participants from Portugal included representatives of the mainline Ministry and two related institutes. Among the Portuguese NGOs, the National Federation of Economic Housing Co- operatives (FCRI) was the most prominent.

Senior Engineer Rui Correia, President of the Superior Council for Public Works and Transport, in his opening address, referred to the importance of the occasion -- the first time the five Portuguese-speaking countries had come together to consider housing issues. Mr. U. Naiker presented the address on behalf of UNCHS (Habitat), focusing on

The Global Strategy for Shelter to the Year 2000, adopted by the United Nations General Assembly in December 1988, provides an opportunity for developing countries to tackle the shelter needs of the poor in an action-oriented approach.

The enabling approach, central to the Global Shelter Strategy (GSS), highlights the need for the governments to act in areas where the individual or the community is unable to take effective action, for example, provision of basic infrastructure and formulation of planning and building regulations. Such enabling actions will stimulate individual and private initiatives for the construction and improvement of shelter on a sustainable basis.

The GSS lays special emphasis on improving national capacity for the production and use of local building materials.

Even though building materials constitute the largest input in housing construction, in most African countries basic building materials remain chronically in short supply and exorbitant in price. The indigenous materials often suffer from poor quality, and research innovations are seldom translated into marketable products.

One of the underlying reasons for this situation is the high degree of import-dependence in the building-materials industry, while abundant opportunities for truly indigenous production systems remain only marginally exploited.

the significance of the Global Strategy for Shelter to the Year 2000.

The seminar agenda comprised a detailed explanation of the Guidelines for national action contained in the GSS and extensive discussion on the shelter situation in the Portuguese-speaking countries. These included national shelter strategies, constraints in shelter and services production and maintenance, recent initiatives in the shelter sector, bilateral and multilateral co-operation. Field visits were made to several projects of relevance -- in particular, to housing projects being undertaken by co-operative societies, those involving resettlement of squatter families, settlements upgrading, subsidized rental housing and rehabilitation of dilapidated housing in areas close to the centre of Lisbon.

A brief account of the shelter situation in each of the participating Portuguese-speaking countries plus proposals for national action follows. Overall recommendations are to be found in the box .

■ Angola

As a result of past nationalization policies and the appropriation of abandoned properties, the State owns some 130,000 houses, which are becoming dilapidated due to lack of maintenance. The building-materials industry is inactive. A National Housing Committee has been formed to undertake reorganization of the shelter sector.

To meet the problems, it is proposed to:

- o undertake reorganization of institutions in the housing sector at the central and local levels;
- o finalize the legal framework to encourage the private sector; and
- o privatize the production of building materials.

■ Cape Verde

Limitations in finance, infrastructure, building materials, human resources and land availability are coupled with a weak formal private sector. The informal sector builds some 50 per cent of the new housing, but this resource is not incorporated into the national housing production process. New national shelter policies and strategies are needed. After a national seminar, held in December 1990, the Government now encourages institutions for housing finance and housing production as well as local authorities.

National action proposals are to :

- o improve the training of personnel in the shelter sector;
- o set up community-based savings associations;
- o review the situation in building materials with a view to increasing the production of local materials;
- o develop the private sector to improve its housing output;
- o integrate the institutional arrangements for shelter and services.

■ Guinea Bissau

The housing situation is characterized by a shortage of housing (including rental housing), lack of maintenance, limited infrastructure and services and overcrowding. Deregulation policies have not attracted the private sector, and housing credit is limited. Housing-related activities are un-co-ordinated, and there is need for a housing policy.

National action proposals are to:

- o prepare a policy and programmes for the housing sector;
- o revise the legal framework of that sector;
- o revise legislation on local authorities and rental housing;
- o introduce legislation to promote local building materials.

■ Mozambique

The housing situation in this country is critical due to limited action by public agencies. In urban areas there is a severe lack of maintenance of the housing stock, and some 80 per cent of the houses have no potable water. Land policies are ineffective, mechanisms to generate finance for housing are weak, and rents of public housing are heavily subsidized.

Proposals for national action are as follows:

- o adopt a national housing policy;
- o develop the capacity to produce local building materials;
- o initiate the legal process and set up an institution for physical planning;
- o liberalize the real estate industry and encourage private-sector production of housing;
- o review the rent policy;
- o establish a housing savings scheme.

■ Portugal

A deficiency in both quantity and quality of housing affects some 50 per cent of the population in the urban areas. The housing shortage increased between 1980 and

Lisbon Seminar recommendations

The Seminar adopted a number of recommendations aimed at improving the shelter sector in the Portuguese-speaking countries. A brief summary of the recommendations follows:

- □ UNCHS (Habitat) and the Government of Portugal should join their efforts to assist the Portuguese-speaking countries of Africa towards implementing the GSS.
- □ UNCHS (Habitat) should consider setting up a group of Portuguese-speaking housing experts in order to assist Portuguese-speaking countries.
- □ Human settlements development in the Portuguese-speaking countries can be improved by identifying areas of priority activity, mobilizing financial resources (including private savings) and decentralizing public administration.
- □ Similar seminars should be held annually, in order to follow-up the latest progress in the different Portugese-speaking countries in the shelter sector better and to encourage co- operation among that group of countries.
- □ An information journal in the Portuguese language should be established to disseminate information on recent achievements in the shelter and human settlements sector.
- □ Promote bilateral co-operation among Portuguese-speaking countries; collaboration among experts for the Portuguese- speaking countries and among the cities of these countries and also increase co-operation between these countries and UNCHS (Habitat).
- □ There is need for translation and dissemination in the Portuguese language technical documentation on housing and human settlements produced by the United Nations system.

1990, when average housing construction in the urban areas was dwelling units for 1,000 inhabitants. The private sector builds some 90 per cent of all housing and the co-operative sector some 6 per cent. The Government plays a complementary role. Only 2 per cent of the houses are built for rental, and the rental subsidy scheme covers less than 10,000 families -- whereas some 250,000 poor families need subsidy.

The national action proposals were that:

- The rental housing sector is to be revitalized;
- Housing finance mechanisms are to be improved to facilitate home purchase.

■ Sao Tome and Principe

There is a growing need for housing: only 1000 houses were built during 1981-1990 while the need during that period was 7,500 units. There is a shortage of funding for housing, and of building materials such as cement, bricks and tiles. Local materials such as stones, timber and clay are not used correctly. A shelter-sector analysis was made in 1990 with assistance from the United Nations Development Programme (UNDP) and UNCHS (Habitat).

It is proposed to:

- prepare a national shelter strategy, and
- adopt policies to encourage the involvement of the private sector.

The GSS subregional seminar for Latin America, held at San José, Costa Rica, 4 to 8 March 1991, will be reported on in the next issue.

International Consultation on the GSS

The Building and Social Housing Foundation sponsored a consultation on the Global Strategy for Shelter to the Year 2000 for the purpose of defining action proposals to implement the Strategy. Participants from developed and developing countries met at St. George's House, Windsor Castle in the United Kingdom from 28 to 30 January 1991 to discuss the problems of informing communities and mobilizing them to take an active role in Strategy execution, and the resource issues associated with the Strategy -- including the potential value of the so-called "peace dividend" which might result from a reduction in arms expenditure throughout the world. Recommendations were made for follow-up at governmental and non-governmental levels. A representative of UNCHS (Habitat) delivered a background paper on behalf of the Executive Director and took part in the deliberations of one of the Working Groups of the Consultation.

Young German experts to support UNCHS (Habitat) activities

In February this year, Mr. André Dzikus, a young German graduate with a Master of Science degree in Geography joined UNCHS (Habitat). Mr. Dzikus, who specialized in urban, settlement and medical geography at Heidelberg University, will serve the Centre as an associate expert on the basis of an agreement to extend the German associate expert programme to UNCHS (Habitat).

The associate experts and junior professional officers (JPOs) provided by the Government of Germany carry out technical co- operation activities through UNCHS (Habitat). To meet this goal, personnel with suitable academic and professional qualifications work under the direct supervision of an experienced expert designated by UNCHS (Habitat). However, associate experts and JPOs may also be employed at UNCHS (Habitat) headquarters. Mr. Dzikus, for example, who graduated with a first grade distinction, works for the Centre's Research and Development Division in the Building Materials and Infrastructure Section.

In general, associate experts such as André Dzikus are made available to UNCHS(Habitat) in response to specific requests from governments of countries participating in technical co-operation activities carried out by UNCHS (Habitat) or for projects for which the Centre has been appointed executing agency.

In accordance with the bilateral agreement, the German Government meets all identifiable costs such as salaries, allowances, various forms of insurance and the cost of transportation to and from the duty station in accordance with UNCHS (Habitat) staff regulations.

Each associate expert or JPO normally is assigned for a period of twelve months. This period may, however, be extended by the Centre in agreement with the government providing the expert.

André Dzikus is not the first officer joining UNCHS (Habitat) by agreement between the United Nations and governments concerning the provision of associate experts and JPOs. Similar treaties have been signed by a number of other countries including Denmark, Finland, Italy, The Netherlands and Norway.

An agreement between the Government of Germany and UNCHS (Habitat) concerning provision of associate experts and junior professional officers was signed by the Ambassador of Germany to Kenya, H.E., Mr. Franz Freiherr von Mentzingen (second from right) and Dr. Arcot Ramachandran, Executive Director of the Centre.

WORLD HABITAT DAY

World HABITAT Day 1991 theme: Shelter and the Living Environment

One of the primary reasons why environmental issues have found wide acceptance as priority areas for policy action is that neglect of such issues will imperil the health and welfare of the entire human race.

From this perspective, one of the most desperate environmental problems the world is facing must surely be the living conditions of the more than one billion people who lack the most rudimentary housing, water supply, sanitation services, health care and support facilities in order to lead a tolerable life.

It is in human settlements -- where people live, work and carry out all of life's other activities -- that they consume such natural inputs as air, water, agricultural, forest, marine and mineral resources and which, in turn, are transformed into the energy to drive all human activity.

The by-products produced in this process can, in turn, damage the natural environment, threatening the very same human-settlements life-support system. The improvement of conditions in the immediate environment where people live and work thus constitutes a vital step for achieving the overall objective of environmental conservation, alleviation of poverty and general economic and social development -- in short, **sustainable development**.

For example, there is no need to waste time and fuel if the demand for mobility is reduced by reasonably increased densities, decentralization of functions, alternatives to physical mobility and a better integration and distribution of settlements. There is no need to waste excessive amounts of energy if the buildings you live and work in are sound, well-insulated and designed in such a way as to minimize the need for comfort conditioning. Similar examples can be made for the whole range of activities which generate wasteful consumption of energy, for instance in transport, most of which take place in human settlements and are prime determinants of environmental pollution and adverse climatic change.

What is needed to forge an environmentally sustainable path towards human progress, as emphasized by the 1991 theme "Shelter and the Living Environment", is a new environmental consciousness.

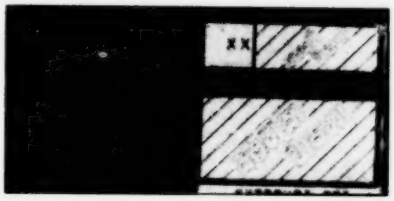
Such consciousness should be global and centred not only on the minds of policy-makers and experts, but also in the hearts of ordinary people, as expressed in their everyday actions and relationships with their environment. Only when such consciousness has penetrated to the grassroots of society is it possible to mobilize the kind of support required to stop environmental decline. Environmental policies, particularly in connection with the living environment of poor people, must not be perceived as something distant but of immediate benefit to the majority of the population.

Further celebrations of World HABITAT Day 1990

Reports on the celebration of World HABITAT Day 1990 continued to be received after the deadline for the previous issue of UNCHS HABITAT NEWS. We include a few accounts here, in order to provide our readers with ideas for commemorations of future such Days elsewhere.

In **Brazil**, for example, those present at the XVIII International Association of Housing Science (IAHS) World Congress on Building for the Future, held in Rio de Janeiro from 8 to 12 October celebrated World HABITAT Day. Participants from the 22 countries represented had the opportunity to look at UNCHS (Habitat) publications and posters. The Vice Ministry of Housing and Urban Development in **El Salvador** organized a celebration on the Day itself, which included remarks on the theme of the Day, "Shelter and Urbanization", a presentation on the municipal land allocation project, and a video on putting up prefabricated housing. Following questions and answers, 200 saplings were handed over to the audience. Governmental/NGO co-operation was stressed, and further events were scheduled for 4 and 5 October.

Events commemorating the Day in **Sri Lanka** ranged from a special seminar on the theme -- organized jointly by the Urban Development Authority and the National Housing Development Authority -- through an art exhibition displaying the winning entries of the World HABITAT Day Art Competition to the dedication of a model village. Some 3500 youth took part in a march to commemorate the occasion. A new lottery ticket (shown below) was also introduced on 4 October to mark World HABITAT Day 1990. Events in various districts included the building of houses for the poor and functions at the village level on the theme of preparing the city for the year 2000.



In **Saudi Arabia**, local papers noted both global and national efforts to help meet the challenges of urbanization. The *Saudi Gazette*, for example, quoted a manager of a leading consulting firm as saying that "Saudi Arabia has gone through an urban revolution -- not evolution, like other societies." The same article, however, noted that the Kingdom had handled the urban boom well, although over the past 20 years the percentage of population living in metropolitan areas had grown from 20 to 65 per cent. From **Turkey** come reports of the Bursa section of the Chamber of Architects of Turkey holding a panel discussion on "Shelter, problems and answers", followed by an exhibition on the architectural heritage of Bursa and the presentation of prizes to journalists who had in the previous year brought human-settlements issues to the attention of the public. A visiting group of architects from Skopje, **Yugoslavia** joined their Turkish colleagues at these events. From Paris, **France**, came word of a large reception held during United Nations Day (24 October), at which the UNIC Director presented the 1990 Scroll of Honour Award (see previous issue of UNCHS HABITAT NEWS) to CRATerre International. In **Romania**, the Department for Urban and Regional Planning and the Union of Architects co-operated to celebrate World HABITAT Day, organizing a round-table discussion with the participation of the

high-ranking officials from the organizing bodies, the URBANPROJECT Institute, and the Professional Association of Urban Planners of Romania.

In **Canada**, World HABITAT Day 1990 was announced in the House of Commons by Mr. Dave Worthy, Member of Parliament for Cariboo-Chilcotin. Later that day, the International Office of the Canada Mortgage and Housing Corporation (CMHC) hosted a round-table discussion focused on shelter and urbanization. Mrs. Gloria Knight of **Jamaica** was the keynote speaker, while participants included CMHC staff and the Chief of the UNCHS (Habitat) Information Office for North America and the Caribbean. Shelter Unlimited followed with a symposium on the theme "Shelter to the year 2000 -- the role of the Canadian non-governmental organizations". The Peel Non-Profit Housing Corporation, through the Peel County Local Access to Permanent Housing Committee, observed the Day with several activities catering to a cross-section of the community.

In the **United States of America**, the San Diego City Council adopted a resolution recognizing World HABITAT Day and "urging housing officials, representatives from the community and the housing industry to join together in the search for solutions to provide decent, safe and affordable housing for all San Diegans."

INTER-AGENCY CO-OPERATION

United Nations International Conference on Aging Populations in the Context of the Family

This conference, held at Kita-Kyushu from 15-19 October 1990, addressed regional perspectives on aging and the family, demography, socio-economic issues, support for the elderly, and housing issues relevant to the context of the elderly, was organized by the United Nations Population Division of the Department of International Economic and Social Affairs (DIESA), United Nations Headquarters, and the Municipal Government of Kita-Kyushu, in collaboration with the Japan Aging Research Centre (JARC), the United Nations Centre for Social Development and Humanitarian Affairs (CSDHA) and UNCHS (Habitat).

Over 30 experts, who represented several national and international organizations, presented papers to the Conference. A large number of observers from the city of Kita-Kyushu also attended.

During the session on **regional perspectives on** aging and the family, evaluation of increasingly complex kin structures, the role of the State and the family in care-giving, changing patterns of marriage and divorce, and increasingly early retirement among men and its effects on family life were considered. The session on **demographic issues** focused on the recent findings and emerging issues of research on demographic aging in the context of the family, trends in the marital status of the elderly, patterns of migration and their implication for elderly family members, and trends in household structure. **Socio-economic issues** addressed were the changing status and roles of the elderly within families, evolving family structures and their implications for the elderly, and the transfer of assets from the elderly to younger family members. The session on the **support for the elderly** addressed the topics of family support for the elderly, public support to families who care for the elderly, and the evolving status and roles of women and the provision of family care. **Housing issues** were addressed by two papers: "The implications of the aging of families for housing conditions" and "Housing policies and programmes to promote family care for the elderly". During the discussions of this session the UNCHS (Habitat) representative drew the attention of the participants to the housing and settlements problems of the elderly in the developing countries, particularly on policy formulation to improve the housing and settlements situation. During the final session a draft declaration and recommendations were adopted.

The Conference was successful in bringing together well-known experts in the field and representatives of organizations involved with research activities on aging. It also provided an overall review of issues, problems and prospects of aging populations in the context of the family. Participants felt that governmental policies concerning the effects of changing age structures on the family should be formulated according to the cultural, economic and social characteristics of each country. It was also emphasized that policies which affect the old also affect the young and that the family is the central institution binding together all age groups. The Conference, one of the major activities undertaken within the International Plan of Action on Aging, served as a welcome beginning; and the forthcoming conference publications will provide valuable information.

Symposium on the Mega-city and the Future: Population Growth and Policy Responses

A Symposium on the Mega-city and the Future: Population Growth and Policy Responses, organized by the United Nations Population Division of DIESA and the United Nations University, was held from 22-26 October at the United Nations University in Tokyo. There were about 40 participants in addition to the experts who presented papers and representatives of a number of national and international organizations, including UNCHS (Habitat). Local observers and a number of press officials also attended.

Mr. S. Erguden, representing UNCHS (Habitat), spoke during the introductory panel on "The mega-city and mankind's future". This formed part of the first session on "Mega-city growth: what does the future hold?". The issues of demographic trends and projections, the current global adjustment and shifting techno-economic paradigm on the world city system, were discussed. The session on "Economic consequences of mega-city growth" addressed the issues of the redistributive role of mega-cities, labour-force change and mobility in

the extended metropolitan region of Asia; and economic impacts of third-world mega-cities. Papers presented in the session on "Social impacts of mega-city growth" focused on welfare and on impacts on families and households. During the session on "Mega-city management issues and innovation strategies", a broad range of topics including regional views, land and shelter in mega-cities, transport, financing infrastructure in developing-country mega-cities, social services for the poor, innovative strategies and management of disaster mitigation in mega-cities, and the environmental issues in third-world mega-cities were covered. In the final session of the symposium, priority issues in mega-city management and policy research were discussed and the recommendations of the symposium adopted. The Symposium was cognizant that the growth and development of mega-cities should be identified as an important theme in the elaboration of the strategy for the next United Nations Development Decade and the forthcoming International Meeting on Population in 1994.

The Symposium was followed by an **Inter-agency meeting** on the issues of urban agenda for the 1990s. During that meeting, symposium participants from the Asian Development Bank, Population Division, DIESA, Economic Commission for Africa, UNCHS (Habitat), United Nations Centre for Regional Development, United Nations Development Programme, United Nations University and the World Bank informed each other about the ongoing and future activities of their organizations within the field, and discussed ways of improving co-ordination, particularly of improving the flow of information and dissemination of documentation.

UNICEF launches State of the World's Children Report

The official launching of the United Nation's Children's Fund (UNICEF) *State of the World's Children 1991 Report* took place in Berlin, Germany, with a simultaneous audio-visual satellite link with Nairobi, Kenya, on 19 December 1990.

Organized around the theme "keeping the promise", the report is an important follow-up of the World Summit for Children held at United Nations Headquarters in New York on 29 and 30 September 1990 (see previous issue of UNCHS (HABITAT) NEWS). At the Summit an unprecedented 71 Heads of State or Government adopted and signed the Summit Declaration and Plan of Action, their solemn promise to achieve strategic child survival, protection and development goals in the next ten years.

Children first

The World Summit and the Convention on the Rights of the Child, signed by 61 countries on 26 January 1990, provide the framework for a series of concerted efforts to improve the state of the world's children. One such action was the seminar hosted by the Eastern and Southern Africa Regional Office of UNICEF on 19 December 1990, immediately preceding the satellite link-up. Addressing the gathering, Dr. Mary Racelis, Regional UNICEF Director, spoke of the need for children to have the first call on resources, national and international, in good times and bad. Participants, representing other United Nations agencies, non-governmental organizations, government and media, viewed the video which had been seen by Heads of State and Government at the World Summit, and which emphasized not only the need to reduce the quantity of death (one child dies every two seconds -- or 341 in the course of the video) but also to improve the quality of life.

A panel of UNICEF experts then presented such issues as legal/governmental acceptance of child rights, the impact of the economic crisis and structural adjustment on children, and that of armed conflict on the status of children. In the ensuing discussion, participants spoke of the definition of peace (NOT just the absence of armed conflict), the role of mothers as implementors, and the need to have workshops on such topics as slum clearance and children first.

The 1989 Convention (article 27) noted that States Parties to the Convention are expected to provide material assistance and support programmes where necessary, particularly in the areas of nutrition, clothing and housing. Similarly, as the Secretary-General of the United Nations stated in his message on the ratification of the Convention on 2 December 1990, "The entry into force of the Convention presents a significant challenge to the United Nations: that of helping States to implement it."

Of special interest to UNCHS (Habitat) are the up to 100 million or so children who are estimated to live on the streets of the world's cities. What can the Convention do to help those street children who have run away or been abandoned or orphaned? The Report provides an appropriate response. "Like other such documents in human history, it articulates a universally accepted ideal which, with sustained pressure from politicians, press and public, can eventually become the standard below which any nation, rich or poor, will be ashamed to fall.". Or again, "It is expected that the standards set by the Convention will become the point of reference for everyone concerned with the heaklth, development, and protection of children. The Convention will thus provide a universally valid basis for advocacy on behalf of children everywhere."

THE URBAN MANAGEMENT PROGRAMME

Capacity-building for urban management in the 1990s

The Urban Management Programme (UMP) which has been the subject of a series of articles in previous issues of UNCHS HABITAT NEWS, represents a major joint approach by the United Nations family of agencies, together with other external support agencies (ESAs), to strengthen the contribution that cities and towns in developing countries make towards economic growth, social development and the alleviation of poverty. The Programme seeks to develop and promote appropriate policies and tools for improved urban management in four key areas: land management, infrastructure management, municipal finance and administration, and the urban environment. Through its capacity-building component, the UMP is working to establish an effective partnership with national, regional and global networks and ESAs in applied research, dissemination of information and experiences of best practices and promising options.

During Phase I of the UMP, a number of case studies were undertaken in connection with UNCHS/World Bank-supported projects throughout the world. The main conclusions of this work will be communicated in a series of policy framework papers and background papers, audio-visual materials and computer programmes that provide lessons from many countries and a series of tools that should be useful in addressing the four key issues.

This preceding work, as well as the operational experience of the World Bank, United Nations Development Programme (UNDP) and UNCHS in the four years since the UMP began, has led to the identification of priority issues and opportunities in urban management which are especially important to efficient urban development, poverty alleviation and environmental protection. As a result they shall be further analyzed in consultation with developing countries.

The Second Phase

Phase II of the UMP (1991-1997) is concentrating on capacity-building. This involves partnerships between the UMP, countries, ESAs, regional institutions and NGOs. The UMP will work with countries to identify and address priority urban-management issues and will strengthen regional networks dealing with these issues by increasing information flows and discussions about promising strategies and experiences. ESA partners will play a major role in these endeavours in keeping with their particular interests. The UMP and partner ESA agencies will work together with public and private agencies, institutes and NGOs and consultants within developing countries and developing-country regions in a systematic programme designed to continue to generate and transfer knowledge and experience in two directions.

The UMP will convey the experience and results of Phase I while the local and regional participants will similarly convey local knowledge, data and experiences to the UMP in order to increase the international pool of knowledge about urban-management issues. This feedback loop will ensure that the research which will continue to be undertaken under the four subject areas of the UMP will be updated and enriched by the experience from these capacity-building activities, and results flowing into the networks would similarly benefit. Chart 1 illustrates the structure of the programme activities and relationships with the networks, and the flow of information between the national, regional and global levels.

Phase II will, therefore, have an impact at the national, regional and global levels. At the national level, the primary objective will be to build capacity among the institutions and individuals, both governmental and non-governmental, concerned with urban development and management. Work at the regional and global levels will facilitate the participation of countries in inter-country research-and-training programmes to share their experiences and findings. Regional networks will provide the infrastructure for these exchanges and contribute to the flow of exchanges from their own programmes as well as benefitting from the experiences of others.

The results of the collaborative research at the national level as well as other documented experiences from the national and regional levels will be incorporated into the international pool of knowledge of the UMP at the global level. Because the architecture of this structure of information exchange would be extensive and inclusive of interest at every level, it should lead to more enlightened designs of municipal-support initiatives and a broader exchange of information on results. In particular, the results of the programme will make a direct contribution to the design and implementation of urban projects financed by the UMP partners: UNDP, the World Bank, UNCHS (Habitat) and ESAs.

The elements of the UMP's capacity-building programme include: urban-management consultations on priority issues with countries, implementation of studies and research, the presentation of results, and dissemination. The locus of responsibility for these functions will gradually shift to regional and country institutions during implementation of Phase II. Successive rounds of activities within a country will become the responsibility of country institutions, while successive rounds that initiate activities in countries new to the UMP will require lead roles by regional training/research institutions. In these latter cases, regional institutions will provide advice and guidance as requested by countries, based on these institutions' participation in, and

knowledge gained from, previous rounds working with the UMP team.

■ Implementing Phase II

While the need for flexibility is recognized in pursuing Phase II of the UMP, several reasons including resource (financial and managerial) constraints, argue for programming activities into carefully-designed sequences, notwithstanding timely support that may be extended to relevant on-going local initiatives. The strong need for learning requires that experience be gained in manageable segments before expanding the range and scope of activities. This would also facilitate strengthening and consolidating regional networks.

One result of the capacity-building effort will be a much broadened institutional base from which research and interventions, based on the work of the UMP, may be carried out. There are three ways by which external inputs into UMP activities at a national level will be managed: UMP agencies taking lead responsibility; UMP agencies sharing lead responsibility with local or regional agencies; or, local or regional agencies having lead responsibility with UMP agencies providing advice and support as needed. Achieving this third format is one goal of capacity-building, as it will permit many more countries to benefit from the work of the UMP. In order to develop the working relationships and experience that will facilitate the extensive use of these three formats, three rounds of application are proposed. In this manner, there will be a programmed transfer of knowledge from the UMP to national and regional institutions. Similarly, participating national and regional institutions will be able to transmit knowledge, local experiences and information to the UMP.

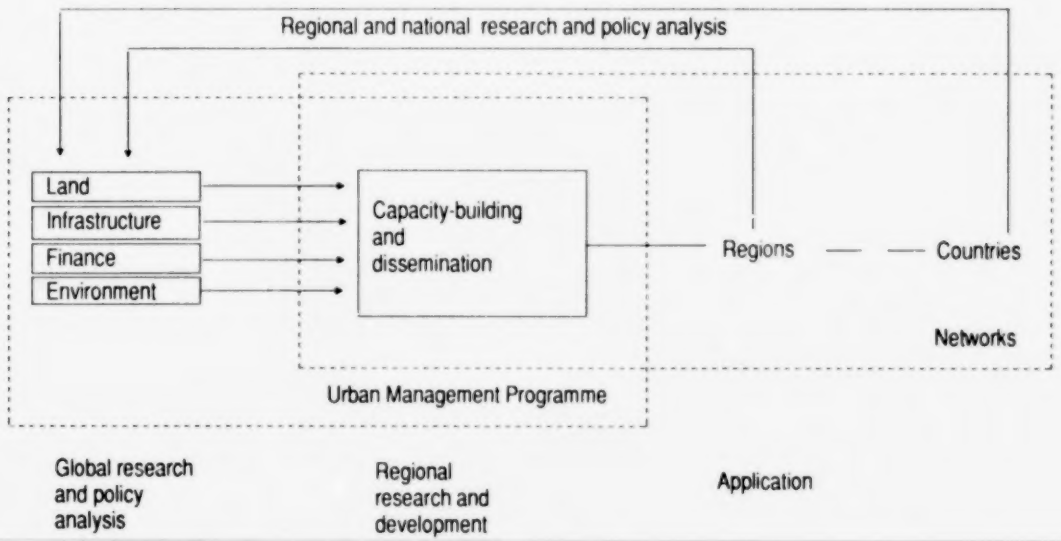
In most cases, each successive round will involve a different country within each region and require two to three years to complete. However, each succeeding round can begin before the end of the preceding round. Implementing activities will thus overlap, and the entire Phase II will require a total of about six years.

Phase II consultations are currently being initiated with Brazil, Ghana and Indonesia. The issues tentatively selected in each country reflect preliminary expressed concerns of the officials of those countries, and in some instances are part of proposed or on-going donor-supported programmes. In Brazil, the issues to be addressed will probably include **Municipal Finance and Administration:** central-local relationships; **Infrastructure:** links between urban infrastructure and services performance and the macro-economy; **Urban Land Management**: urban land and related markets -- identifying and rectifying constraints; and **Urban Environment:** regulatory issues in pollution control. In Ghana, the concerns will probably focus on **Urban Land Management** to help rectify constraints in the functioning of urban land markets. The work in Indonesia will probably focus on **Infrastructure:** links between urban infrastructure and services performance and the macro-economy; **Urban Land Management:** urban land and related markets -- identifying and rectifying constraints; and, the **Urban Environment:** improving urban-waste-management capacity and operational efficiency. Mozambique may be one of the next countries added when the current study on the needs of local governments has been completed and the issues to be investigated are clarified.

As noted above, these efforts in addressing solutions to the priority problems will be a collaborative effort of UMP partners.

The UMP Task Managers who will guide the exercise will help prepare initiating briefs setting out the background and objectives of the programme to be accomplished in each particular country, the issues to be addressed, the methodologies of approach, the operating framework -- including the proposed assignment of responsibilities, the timetable and the products to be realized. This initiating brief will be discussed at an in-country meeting with the governments, local research institutes and consultants, and participating donor agencies. That meeting will agree on the elements of the brief, including the work programme, assignments, outputs and timetable. In addition, training programmes for local and regional participants will be identified and agreed.

Chart 1. Structure, Relationships and Information Flowchart



To the extent possible, communication systems will be established to link computers in all the key agencies involved in the programme. The purpose of this is to promote close working relationships and assist in a two-way information exchange throughout the process. Thus, agencies would share common databases, would be able to produce joint papers more easily by transmitting drafts between them, and, where necessary, provide prompt advice and guidance on issues that arise during the exercise. Monitoring of progress of the programme also would be facilitated. In this process the UMP also hopes to establish electronic bulletin boards on key urban-management events globally and in each developing-country region so as to further facilitate the urban management information flow.

A presentation of Phase II of the Urban Management Programme will be made jointly by UNCHS (Habitat) and the World Bank at the thirteenth session of the Commission on Human Settlements in Harare.

Cape Verde: UNDP Assistant Administrator visits Cape Verde projects

On 16-18 October 1990, Mr. P.C. Damiba, Assistant Administrator and Director of the Regional Bureau for Africa of UNDP visited UNDP/UNCHS (Habitat) projects CVI/86/005 and CVI/85/CO1. In these photographs he is shown (second right) at a reception held at the Braco Tcheu school in Praia, hosted by students and community representatives, with Mr. A. Sow, Chief Technical Advisor, also in glasses; and at an exhibition on the project and exchange of gifts with the people, with Mr. M. da Graca, UNDP Resident Representative on his right.

The projects include the creation of a school and kindergarten as part of the amelioration of the living conditions of the poor in Praia. Other improvements are the upgrading of water and sanitation facilities, provision of electricity, and the general restructuring of the neighbourhoods involved. Braco Tcheu is the site for one of three pilot projects to put in place the necessary technical and financial means to improve the housing and other living conditions of the people there.

China: preserving the past

China has assigned very high importance to maintaining cultural integrity as a key element in quality of life. Within the last decade, the State Council (National Cabinet) has designated 62 cities and towns as containing culturally significant areas. Many of these culturally historic areas are in need of rehabilitation and redevelopment.

During the International Seminar on Preservation and Rehabilitation of Historic Districts, Towns and Monuments in Some Developed Countries and Its Relevance to Developing Countries, sponsored by UNCHS (Habitat)/International Academy of Architecture (IAA), the preservation and rehabilitation of the historic town of Yibin, Sichuan Province, was proposed by China. At a later date, the Ministry of Construction (MOC) also proposed adding Pingyao City for future technical assistance.

To this end, representatives of UNCHS (Habitat) and the IAA visited the two towns from 16 to 26 October 1990 at the request of the Government of China, which is equally committed to the goal of improving the quality of life. The mission was also supported by UNDP in Beijing and the Assistant Representative of China to UNCHS (Habitat) in Nairobi. The major objective of the mission, as formulated in the request from MOC was to evaluate the situation in both cities (Yibin and Pingyao) and consider the funding to be required.

The initial approach by China to UNCHS (Habitat) was a request for funds to assist in the restoration of major historical artifacts

Scenes from and around Pingyao and Yibin, two Chinese cities proud of their past and working to maintain their cultural integrity for future generations.

and associated infrastructure in the two towns. Site visits revealed, however, that the scale of rehabilitation will require extensive replanning and redevelopment, staged over a period of years.

Pingyao

A relatively stagnant rural town, Pingyao is located in an economically depressed region of Shanxi Province, west of Beijing. Of the 60,000 inhabitants, 40,000 live within the two square kilometres enclosed by the ancient city wall. Issues identified include relocation of population from overcrowded dwellings, supply of skilled labour and quality materials, organization of self-help and community-based rehabilitation efforts, financing shelter and infrastructure upgrading and overall management of plan implementation.

The sheer scope of rehabilitation requirements indicates that community participation must play a central role in carrying out a redevelopment plan.

Yibin

In the southern Sichuan city of Yibin, one finds a bustling regional centre with an urban population of 230,000 -- 120,000 of which are located in the old, inner city where density is about 70,000 persons per square kilometre. The old quarter faces many of the same problems of overcrowding, dilapidation, and lack of urban services as Pingyao. However, economic vitality endangers the historic integrity. New apartment blocks are being built at random within the old city without apparent consideration for the demands of infrastructure and required services. In addition, nature plays its role within Yibin as the city lies at the confluence of two rivers (the Min and the Jinsha) that, together, become the beginning of the Yangtze -- a most important symbol of Chinese life and culture. Surface waters appear to be seriously polluted and are further threatened by heavy industrial development. Yibin also contains the second largest urban forest in China.

While the resources for rehabilitation are more readily available in Yibin, integration of environmental considerations (including an aesthetic environment represented by the old inner city) with the management of a comprehensive rehabilitation programme may indicate an area for technical co-operation in sustainable development.

These cities represent two very different case studies where a variety of means for planning, rehabilitation, and conservation may be tried.

International technical co-operation may help to create and enhance the mechanisms for intra-regional resource management and development planning within the evolving socio-economic context of China. It may also be seen as another, broader dimension to the urban environment as dealt with in the Sustainable Cities Programme.

Recommendations from the mission include:

- formulation of integrated regional physical and economic development plans for the upper reaches of the Yangtze River basin, with an emphasis on environmental carrying capacities, developmental opportunities and constraints, and comparative economic advantage;
- selection of Yibin as a pilot case in the Sustainable Cities Programme for improvement of the urban environment;
- reformulation or updating of master plans for Pingyao and Yibin, emphasizing the maintenance and use of management- information systems, analysis of resources and methods for plan implementation (including community groups and NGOs);
- design and implementation of specific feasibility studies for rehabilitation of housing and infrastructure in Pingyao, modeled after recent experiences in other Chinese cities;
- associating with the MOC and one university or more to provide on-the-job training for urban development management;
- preservation/conservation of the primary historic elements of Pingyao and Yibin through provision of training, short-term consultancies in the field, and by co-sponsoring national/international design competitions.

Congo: Shelter Strategy under Preparation

A UNDP/UNCHS (Habitat) project, PRC/90/002, has recently been launched in Congo. It aims at formulating a national shelter strategy (NSS), in accordance with the Global Strategy for Shelter to the Year 2000 (GSS), which recommends a partnership between the public, private and informal sectors and an enabling approach on the part of the Government. The NSS will be focused on urban areas. The project has been prepared by UNCHS (Habitat) and the Government as a follow-up to a National Seminar on Housing Issues which took place at Brazzaville in June 1989. It started at the end of 1990, with the recruitment of the Chief Technical Adviser and a United Nations Volunteer.

The first planned activity is an assessment of urban shelter, using the indicators designed in the framework of the GSS. Then five groups of studies are foreseen (dealing respectively with institutions, housing finance, infrastructure, land, and the building industry). Each study will analyse the bottlenecks and provide guidelines for realistic improvements in the related area. The last set of activities is the formulation of a draft shelter strategy, discussed during a national policy seminar and submitted to the Government for comments and endorsement.

Expected results include a survey of all urban housing in Congo, thematic reports on the five main components of the housing strategy and a draft NSS gathering and synthesizing these reports, proposing possible options and presenting a plan of action. The project is planned to be completed by the end of 1991.

Montserrat: Regional building teams aid reconstruction effort

When Hurricane Hugo hit Montserrat on 17 September 1989, approximately 80 per cent of the housing was damaged. The Government has since been trying to ensure that through a newly-established Rebuilding Unit, technical advice and, in needy cases, actual construction materials, are provided so that reconstruction is properly done. UNDP and UNCHS (Habitat) have been providing technical supervisory assistance in reconstruction under rehabilitation project MOT/89/003, while further technical support is being provided through their Barbados-based project CAR/89/006, "Support to the human settlements sector in the Caribbean".

However, most of the families affected lacked adequate insurance coverage -- and thus the means to rebuild permanent, hurricane-resistant structures. UNDP and UNCHS (Habitat)provided a team of techni-

cal personnel for a review mission -- which reported that there was an acute shortage of skilled and unskilled labour to do the actual repair/rebuilding work. (Upper-income housing and the hotel industry had attracted the work force.)

Given this situation, it was decided to organize three construction crews to work with the construction supervisors already available. By using students from Barbados, Jamaica and St. Lucia, inter-regional support was ensured. The students would gain on-the-job experience while helping their neighbours in the region. They would each spend two months of their mid-1990 vacation at work in Montserrat earning an honorarium while helping to repair roofs so that they met appropriate hurricane-resistant standards, and otherwise rehabilitating the houses of low-income families who qualified for such assistance on the basis of age, health and the extent of damage to their dwelling.

Three inter-disciplinary teams (each consisting of carpenters, plus a mason, plumber and electrician) did the job. The targeted 260 houses were completed. Not only that, they also established the basis of a regional roster of those willing to help in co-operation efforts, set a precedent for real-life experience in serving a good cause, made new friends, and helped to introduce technologies tested in other UNDP/UNCHS (Habitat) projects in Jamaica and Guyana.

As we go to press, the related planning/housing project MOT/89/001 has begun. A manual on hurricane-resistant construction has been drafted, and work is about to begin on a hurricane-resistant-construction film which should be completed for region-wide use before the next hurricane season. A series of training sessions for small-scale contractors in Montserrat and for self-builders is soon to take place, and recruitment of four expatriate artisans resident in Montserrat is planned to further expedite reconstruction efforts.

Replacing a roof destroyed by Hurricane Hugo

Philippines: Post-earthquake reconstruction and development (PHI/90/FO1)

On 16 July 1990, an earthquake struck north-central Luzon, the Philippines, severing road and telecommunications links, and destroying homes, commercial establishments, factories and agricultural installations. According to the National Disaster Coordinating Council, over 1200 people died, while more than 2700 were injured. Overall, it is estimated that 120,000 people were left homeless, and property losses exceeded 15 billion pesos ($US555.5 million). Physical damage was generally confined to localized pockets, except in the highland areas of Benguet and Nueva Vizcaya, where it was extensive. The national capital, Manila, although badly shaken, suffered only modest damage.

The destruction caused by the earthquake is having serious repercussions on the lives and economic activities of not only the people directly affected, but of Filipinos in general. The problem of broken road links illustrates the point. The flow of goods and supplies for farmers and manufacturers has been choked. As a result, people who barely noticed the seismic event now feel their standard of living decline in its aftermath. The earthquake has resulted in increased food prices, unemployment, and pressure on the national balance of payments.

United Nations Volunteer engineer with beneficiary in front of a newly-constructed unit.

Student artisans from Jamaica assisting in the rehabilitation of a house as the beneficiary looks on.

Consequently, the earthquake has placed a heavy new burden on a country already struggling with major economic and other problems. The affected physical environment, cities, towns, villages, and transport and other networks, will have to be rehabilitated. The estimated cost of such reconstruction and associated development will be more than 45 billion pesos.

As the population grows, and investment accumulates in infrastructure and the built environment, the threat of ever-larger losses being inflicted by earthquakes also grows. The recent disaster has highlighted the need to develop a **comprehensive national strategy** to protect the country's population and investment from future strong earthquakes.

To meet this felt need, a team of experts organized by UNCHS (Habitat) studied the situation in a visit to the Philippines from 22 November to 21 December 1990. They met with both local and international (UNDP, World Bank) officials, undertook a week-long field trip and in addition held three day-long seminars on post-earthquake reconstruction, seismic risk and vulnerability reduction. The findings and recommendations to the government and UNDP covered both the assistance required for immediate recovery and the long-term programme for regional development integrating Government, NGO, multi- and bilateral aid.

The expert mission saw the issues as falling into three categories:

- Reduction of earthquake consequences
- Reconstruction planning
- Programme implementation.

Specific recommendations follow.

■ Reduction of earthquake consequences

Multi-Hazard Mitigation

A multi-hazard protection plan should be developed using a database of the building stock, physical infrastructure and economic systems in the region, and the vulnerability of each element at risk to each of the hazards (earthquake, typhoon, other natural disasters). The plan ought to be drawn up prioritizing investment to produce the maximum reduction in threat to life, structures, and economic production.

Preparedness for Future Earthquakes and Other Natural Disasters

A national institution or administrative entity should be established, either by creating a new body or by expanding the powers of the present National Disaster Coordinating Council to cover physical planning, engineering standards and professional education standards related to earthquake-impact mitigation. This body must be capable of providing support and guidelines to regional development councils, national authorities and scientific institutions.

Professional Familiarity with Earthquake Protection Techniques

A technical assistance programme should be formulated to help professionals in the Philippines acquire information and to benefit from the disaster mitigation experiences of their counterparts in other countries. In addition, a general public information and education project should be undertaken through news and entertainment media.

Capabilities for Implementation of Protection Plans

The Government ought to undertake a full review of methods and resources needed to implement disaster protection plans. Recommendations should be made, as appropriate, for revisions to procedures, human resource authorizations, and legal regulations.

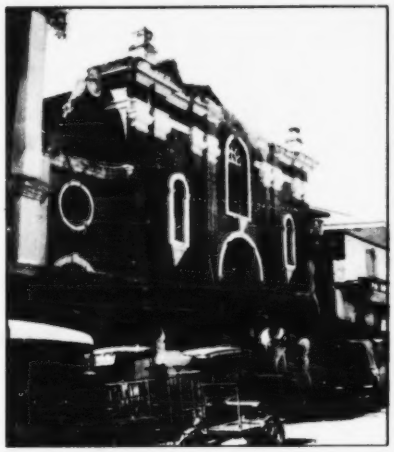
■ Reconstruction planning

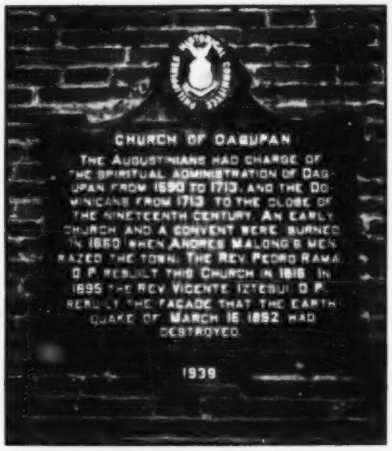
Strategic Policy for Reconstruction and Development

The National Economic Development Authority should design a strategic plan for

(Above) In the countryside, landslides and rockfalls damaged agricultural land.

(Left) In the cities, buildings collapsed. Here we see the remains of the 11-storey Hyatt Terraces hotel.




CHURCH OF DAGUPAN
THE AUGUSTINIANS HAD CHARGE OF THE SPIRITUAL ADMINISTRATION OF DAGUPAN FROM 1690 TO 1713, AND THE DOMINICANS FROM 1713 TO THE CLOSE OF THE NINETEENTH CENTURY. AN EARLY CHURCH AND A CONVENT WERE BURNED IN 1660 WHEN ANDRES MALONG'S MEN RAZED THE TOWN. THE REV. PEDRO RAMA O.P. REBUILT THIS CHURCH IN 1816. IN 1895 THE REV. VICENTE IZTEGUI O.P. REBUILT THE FACADE THAT THE EARTHQUAKE OF MARCH 16 1892 HAD DESTROYED.
1939

The church of Dagupan was damaged, as it had been in the earthquake almost a century earlier.

the reconstruction and development of the district affected by the earthquake as an integrated area. The plan should provide guidelines to be used in assessing the priority of individual projects proposed from the individual regions. Technical assistance would be used to acquire the benefit of experience in other countries in post-disaster development planning.

Programme for Regional Transport Network

Transport infrastructure projects should be planned within the context of the regional development strategy -- taking into consideration integrated urban growth, industrial expansion, agricultural production, and service-sector development. Repair and new construction needs would be assessed within this framework. During the planning phase (estimated duration six months) repair work for restoration of function would continue on vital linkages, but upgrading projects would await the design of the regional strategy.

Planning Urban Development: Strategic Planning vs. Master Planning

Urban planning must be made a dynamic process guided by strategic objectives. The objectives could be reviewed as part of the annual budget process, and thoroughly updated at least once every five years.

Managing Urban Development

A set of guidelines for urban planners should be developed to incorporate building-stock-management techniques into the planning process. (These include differential property taxation, planning dispensations, control of utilities supply, deconcentration of facilities, strengthening of key buildings, and disaster-access-route planning.) The guidelines ought to be developed within a framework of seismic risk analysis in which building-stock information, ground-condition mapping, and expected earthquake shaking levels are used to assess areas and building types most at risk.

Metropolitan Concepts in Urban Development Planning

Several cities have outgrown their administrative boundaries, and urban development is spilling over into adjacent municipalities. Decision-making autonomy in each city and municipality must be reconciled with the need to co-ordinate urban development over an area that covers several administrative units.

Water Resource Development in Cities

As urban areas grow, their need for water often outstrips the capacity of local supply. Administrative mechanisms must be created to facilitate large-scale, risk-minimizing water resource development for areas covering several administrative (city/municipality) units.

Emergency Interim Building Code

An emergency interim building code needs to be adopted to allow individuals who wish to rebuild immediately to do so. The interim building code should be strict enough to ensure that regardless of the outcome of the subsequent planning process, the new buildings will be in compliance with the plan.

■ Programme Implementation

Use of Local Building Companies

A practice should be established whereby the Government uses locally-based contractors for reconstruction projects. Government procurement procedures may need adjustment. Also, assistance may need to be offered to expand local contractor capability.

Integrated Plan for Building Materials

An integrated plan for building-materials supply should be developed for reconstruction needs. Imported materials ought to be used only when national supply is not possible.

Straightening Tilted Buildings Using Local Companies

Technical assistance should be provided to help with technology transfer of engineering techniques for straightening tilted buildings.

Special Training for Building Contractors

Building damage patterns suggest that construction contractors in the region have little experience in designing reinforced concrete for earthquake resistance, and that they need a better understanding of the engineering and construction principles involved. Training programmes for building contractors are needed to improve the quality of reinforced concrete design and construction. They should be practical in nature, giving information on earthquake forces and basic guidelines on good practice for building earthquake-resistant structures.

Mid-term Review of Arab States Regional Programme

The Inter-Governmental Meeting for the Mid-Term Review of the UNDP Fourth Cycle of the Regional Programme for Arab States took place at Damascus, Syrian Arab Republic, from 14 to 16 October 1990. Held under the auspices of H.E. Mr. Mahmoud Al-Zo'oby, the Prime Minister of the Syrian Arab Republic, the Meeting was chaired by Dr. Mohamed A. Nour, Regional Director of the UNDP Regional Bureau for Arab States and Europe (RBASE). Some 130 participants represented Arab Governments, RBASE, United Nations agencies -- including UNCHS (Habitat), the League of Arab States, and the

League's specialized agencies. The opening and closing sessions were both chaired by H.E. Mr. Sabah Al-Baqjahji, Minister of State for Planning.

RBASE and the countries that benefitted (Algeria, Morocco and Tunisia), commended the work of project RAB/89/032, Training of Trainers in Urban Finance and Management, of which UNCHS (Habitat) is the executing agency. Mr. I. Hammad, the UNCHS(Habitat) representative, delivered a short statement in which he stressed the importance of further strengthening relationships between that agency and the other participants at the Meeting. He described the eight subject areas around which the Centre's work programme is structured, and outlined the important features of the Global Strategy for Shelter to the Year 2000 -- stressing the importance of preserving the environment and of engaging women in development as countries drew up their national shelter strategies.

At a meeting with representatives of the United Nations agencies present at the Review Meeting, H.E. Mr. Mahmoud Al-Zo'oby stated, *inter alia*, that the Government of the Syrian Arab Republic encouraged the private sector. The UNCHS (Habitat) representative outlined technical co-operation activities, while the Prime Minister stressed the need for technical assistance in helping to control the growth of unplanned settlements, prepare a national land-use plan -- taking into account the preservation of the environment, and co-ordinate the work of shelter-sector ministries. Follow-up is now underway, and an assessment mission will be fielded shortly, to translate H.E. the Prime Minister's recomendations into action.

Tunisia: Cartography for land use and tourism

The Government of Tunisia is working towards equitable socio-economic development among all regions, both coastal and hinterland. In addition, the country relies heavily on tourism as a major source of income.

In this context, Project TUN/86/009 was formulated under the title "Cartography for the Integration of Archaeological and Historical Sites into Land-use Plans". It aims at identifying archaeological and historical sites, rehabilitating and integrating them into regional land-use plans, and eventually safeguarding them as landmarks of cultural heritage. The project is funded by UNDP and executed by UNCHS (Habitat).

The Director General of Land-use and Urbanization of the Ministry of Public Works and Human Settlements is in charge of project management. In addition to nine nationals, the project team consists of six international consultants, including the Chief Technical Adviser. Architects, archaeologists, historians, surveyors, and photographers are among those who have so far provided their expertise -- as have the University of Tunis, particularly the Faculty of Law, and the National Institute of Art and Archaeology.

In addition to on-the-job training, the project provided four two-week-long fellowships, two to France and two to Italy.

The major output of the project is the preparation of the Tunisian Archaeological and Historical Site Maps at a scale of 1/50,000, and city maps at a scale of 1/2,000 -- covering about 200 towns. To date Project TUN/86/009, now in its final stage, has accomplished the following:

- An inventory of 5205 out of 6500 sites;
- Preparation of 13 maps;
- Identification of some 2100 monuments in 150 urban centres, of which 1725 were visited and inventorized;
- An information and public-awareness campaign launched by an international seminar in 1987. This was followed by several "information day" activities conducted in different regions. A closing international seminar is expected to be conducted shortly.

Finally, and of vital importance for the long-term aim of the project, it has made a positive impact at national, regional, town, and village levels, stressing the fact that the transmission of historic heritage and culture to future generations is a moral and intellectual obligation.

Tunisian Ministry of Housing

An 18th century Ottoman mosque at Ghai el Melk.

Source: UNDP, *WORLD DEVELOPMENT*, January 1991, vol. 4 No.1, p. 24

RESEARCH AND DEVELOPMENT

Second Consultation on the Wood and Wood Products Industry

UNCHS (Habitat) and the United Nations Industrial Development Organization (UNIDO) co-sponsored the Second Consultation on the Wood and Wood Products Industry, held at Vienna, Austria, from 21 to 25 January 1991. Some 48 participants from 37 countries attended the Consultation, as well as representatives from six international organizations and one non-governmental organization.

At the inaugural plenary session, Mr. Mario Piche of UNCHS (Habitat) delivered the opening address on behalf of the Executive Director of the Centre. Recalling the Global Strategy for Shelter to the Year 2000 (GSS) adopted by the General Assembly of the United Nations in 1988, he stressed the importance of the increased use of wood, especially commercially less-accepted species and plantation species, as an affordable and acceptable building material in housing and construction. "If properly managed and exploited, these species can serve as abundant and renewable sources of locally-available building materials that can be afforded by the vast majority of the population." The demand for wood was estimated to rise sharply. In the Philippines, for example, the demand for wood in building construction was likely to rise from 170,000 cubic metres in 1990 to 433,000 cubic metres by the year 2000, by which time the demand for wood in housing construction in Indonesia would be nearly 4 million cubic metres. Nor would the proper use of wood for housing have adverse environmental impacts: when grown and harvested on a planned basis, it is an indefinitely renewable resource. Mr. Kalyan Ray, also of UNCHS (Habitat), introduced the issue paper prepared by UNCHS (Habitat).

That paper, also presented at the plenary session on the first day, discussed the greater use, on a sustainable basis, of wood -- including commercially less-accepted species and plantation species -- as a source of indigenous building materials in housing and construction. Key constraints, both on the demand and supply sides, that prevented the increased use of wood in construction, were highlighted -- and the attention of the Consultation was drawn to possible policies and strategies, as well as institutional and promotional measures that could be adopted at the national level and by the international community to overcome the existing barriers to the increased use of wood in construction.

Following the plenary session, the Consultation was divided into two working groups for discussion of issues. Group 1 deliberated on the means of strengthening the environmentally-sound sustainable supply of timber resources and discussed issue paper two, as noted above. The second group dealt with pre-requisites for the integrated development of the secondary wood-processing industry. The two UNCHS (Habitat) representatives actively participated in the deliberations of both working groups.

Emphasizing the efficient use of wood resources, Mr. Gérard Latortue, Director of UNIDO's System of Consultations, said their use as a fuel should be reduced while waste from solid wood products should be recycled as in the case of paper. Adding value to wood through primary and secondary processing, he said, could generate the resources needed to conserve both tropical and temperate forests as well as promote their exploitation on a renewable basis.

The conclusions and recommendations prepared by those groups were adopted in the final plenary session. Some of the recommendations, relating to the increased use of wood in construction, called for the support of international organizations (including UNCHS(Habitat), UNIDO, and the United Nations Conference on Trade and Development (UNCTAD)) in the following priority areas:

- Intensification of North-South as well as South-South co-operation between research and industrial development centres;
- Promotion/widespread dissemination of practical manuals, design and training aids, codes of practice etc. for standardization of the use of wood as building components and as structures;
- Establishment of productivity centres, organization of demonstration projects and setting up of pilot processing plants for increased use of wood in construction;

Establishment of mutual-guarantee funds, by international financial agencies to facilitate the financing of small- and medium-sized enterprises, and for making credits available for the launching of pilot operations.

In the final session, the Consultation passed a resolution urging UNIDO to implement an operational plan of action based on the recommendations of the Consultation. It also called for immediate follow-up activities through pilot projects or demonstrations in developing countries.

The Consultation was an important forum which provided an excellent opportunity to exchange views with governments, industries and other international agencies on the ways and means to implement the GSS by providing a practical means of increasing the indigenous supply of building materials in housing through the greater use of wood, wherever wood is locally available and cost-effective. The conclusions and recommendations can be used by national governments and international agencies to embark on a practical programme of action that would benefit the shelter sector through the secondary wood processing industry. They will be given wide circulation in the forthcoming issue of the *Journal of the Network of African Countries on Building Materials and Technologies* , which falls under element 4.2 of the UNCHS (Habitat) Work Programme.

Workshops on Building Maintenance Strategy

■ Kenya

UNCHS (Habitat), in co-operation with the Ministry of Lands and Housing and the Ministry of Public Works of the Government of Kenya, organized a Workshop on Building Maintenance Strategy to be held at UNCHS (Habitat) headquarters on 7 and 8 March 1991. It was designed so that an appraisal of current building-maintenance policies, practices and constraints in Kenya would provide an opportunity for local managers, decision-makers, and professionals to review their options and seek new initiatives with a view to improve maintenance standards both in the public and private sectors.

Workshop objectives were to:

- Document the experience of Kenya in building maintenance and infrastructure in the crucial areas of policies, strategies, and institutional arrangements;
- Examine current problems and constraints and the ways these are addressed within the existing framework;
- Examine building-maintenance financing and cost-recovery practices in Kenya;
- Provide strategies for use by national planners, decision-makers, owners, and building managers to improve current practices.

Using the programme of work, a lead paper bringing out the key issues, and a set of technical papers highlighting the experience of prominent agencies engaged in building maintenance in Kenya, the participants were to produce a set of conclusions and recommendations as part of the final report to be published by UNCHS (Habitat).

■ India

A similar Workshop on Building Maintenance Strategy has been organized by UNCHS (Habitat) in co-operation with the Institution of Engineers (India), Maharashtra State Centre. It was to be held on 30 and 31 March 1991, at Bombay, India.

A fresh appraisal of the Indian experience on building maintenance -- particularly the diversity of approach in different regions and in various contexts -- provided participants with an opportunity to review strategies and seek new initiatives, while at the same time providing an insight into what constitutes economically-viable and socially-acceptable options which will be of interest to other developing countries grappling with similar problems.

Participants were drawn from the policy level of Central and State Governments, public agencies responsible for building maintenance, financial institutions, housing co-operatives, professional institutions, building contractors, architects and engineers. They too examined current practice, problems and constraints in building maintenance, and suggested policies and strategies to improve building maintenance and cost-recovery practices -- coming up with a set of conclusions and recommendations to be published as part of a final report.

Establishment of the Water Supply and Sanitation Collaborative Council

As mentioned in the December 1990 UNCHS HABITAT NEWS, some 400 people met in New Delhi for the Global Consultation on Safe Water and Sanitation for the 1990s. The various plenary discussions were used to formulate the New Delhi Statement.

In this Statement, mention was made of the International Drinking Water Supply and Sanitation Decade, and how it brought to light the need for improved water and sanitation to people around the world. It was also noted that the efforts made during this decade barely kept pace with the rise in population. Therefore the challenge for the 1990s is enormous: much faster progress must be achieved alongside increased competition for diminishing resources.

To this end, immediately prior to the New Delhi Global Consultation, the Water Supply and Sanitation (WSS) Collaborative Council was established to offer a new global, informal forum for the exchange of information, experience and ideas, responsive to the needs of developing countries and promotion of the sector. It is a successor to the Collaborative Council of External Support Agencies (ESAs) established in 1988.

The WSS Mission Statement is as follows: "The WSS Collaborative Council's mission is to enhance collaboration among developing countries and external support agencies, so as to accelerate the achievement of sustainable water supplies, sanitation and waste management services for all people, with emphasis on the poor."

To achieve this mission, the Council's goals will be to:

- provide a forum for sector professionals to identify, review and seek consensus on key sector issues, and ensure widespread communication of the results;
- alert members to opportunities for more efficient use of resources;
- increase awareness of the need for intensified efforts to expand sustainable coverage and effective use during the 1990s;
- promote enhanced collaboration at the country level; and
- stimulate the adoption of more harmonious policies, strategies and programmes.

Environmental management of water resources for urban use

The United Nations General Assembly, through its resolution 44/228, recognized the protection of the quality and supply of freshwater as one of the nine issues which are of major concern in maintaining the quality of the Earth's environment and in achieving sustainable development.

In response to this resolution, the World Meteorological Organization (WMO), on behalf of the United Nations system, is convening an International Conference on Water and Environment to be hosted by the Government of Ireland, from 26 to 31 January 1992 in Dublin, Ireland. This Conference forms an essential part of the preparatory process for the United Nations Conference on Environment and Development (UNCED), to be held at Rio de Janeiro, Brazil, from 1 to 12 June 1992, and the principal preparatory effort with regard to freshwater resources.

The main objectives of the Dublin Conference are to:

- Assess the current status of the world's freshwater resources in relation to present and future water demands and to identify priority issues for the 1990s;
- Develop co-ordinated inter-sectoral approaches towards managing these resources by strengthening the links between the various water programmes;
- Formulate environmentally-sustainable strategies and action programmes for the 1990s and beyond to be presented to UNCED;
- Bring the above issues, strategies and actions to the attention of governments as a basis for national programmes;
- Increase awareness of the environmental consequences and development opportunities in improving the management of water resources.

The following four broad themes will be developed for discussion at the Conference: Statement of the problem, Meeting the needs of the rural areas, Meeting the needs

of urban areas, and Challenges for the future.

Within the United Nations system, UNCHS (Habitat) has been given the responsibility of analysing the underlying environmental and developmental issues governing the use and disposal after use of water in urban areas, and of developing strategies and actions through which the developing-country governments should manage the resource to the overall benefit of national development and productivity.

Water is an essential ingredient for many of humanity's productive activities. The continued availability of adequate freshwater resources of acceptable quality is, therefore, a prerequisite for sustaining life and development. The world's freshwater resources are, however, threatened by two factors: first, they are being subjected to rapidly increasing demand and, secondly, they are being degraded by pollution and saline intrusion.

Nowhere are these two factors more strongly in operation than in developing countries: the availability of safe water in these countries is fast becoming one of the most crucial visible indicators of the quality of the environment and a cause of national and regional social conflicts. The threats of increasing water demand and water-quality degradation are particularly concentrated in urban areas, where the environmental and developmental consequences of current trends could have serious negative long-term implications for such countries. Equally, countries poor in water resources are increasingly facing the question as to the best alternative productive sector to which the limited resource must be applied in the interest of development.

As developing countries reach a higher level of economic development, a greater proportion of their water use and disposal will be in urban areas. There is, consequently, an alarming widening of the gap between water demand and supply, between consumption and potentially-available safe water resources in many of the urban areas of developing countries.

Sound management of water resources will be required to maintain supply and keep down the cost of the resource if urban centres are to prove efficient and competitive in the production of goods and services for the national and international markets. Although urban areas of developing countries currently only accommodate about a third of the total population, they nonetheless produce two thirds of the gross national product. With so much of developing countries' outputs depending on the efficiency of urban centres, the supply of adequate freshwater will play a crucial role in eliminating bottlenecks to economic expansion and sustaining development.

Waste recycling and re-use: research in developing countries

UNCHS (Habitat), in collaboration with the Kingdom of the Netherlands' Ministry for Development Co operation, is executing a project aimed at assisting governments in developing countries to upgrade their solid-waste collection and disposal services by providing guidelines for proper waste management -- taking into account the advantages of waste reuse.

Rapid urbanization and the associated growth of industry and services is a key feature of economic and demographic development in most developing countries. Cities are currently absorbing two thirds of the total population increase throughout the developing world. The number of developing-country cities with over half a million inhabitants exceeds 360. At this rate, some 1.9 billion people will populate the urban areas of developing countries by the year 2000, representing an additional 600 million urban dwellers over the next decade. The environmental consequences of present-day urban growth are no longer confined to the city and its surroundings but are increasingly transboundary in nature and affect global conditions in general.

One of the most important environmental consequences of the process of urbanization that is currently transforming developing-country cities is the immense and ever-growing amounts of solid wastes generated within them. These wastes have long outstripped the capacity of nature to assimilate them and of city authorities to collect and dispose of them safely and efficiently. The results are growing pollution of water, land and air -- with direct negative impacts on human health and the quality of urban life, as well as the rapid depletion of environmental resources essential for long-term sustainable development.

A majority of the solid wastes produced in these cities remains uncollected and is dumped on vacant land or directly into canals and rivers. While the inadequate disposal of solid wastes in urban areas gives rise to a number of environmental problems (polluted surface waters, air pollution, toxic fumes, damage to the ozone layer, provision of foci for a variety of disease-carrying vectors, noxious odours) the reclamation and re-use of materials contained in them can actively prevent environmental degradation.

Recycling metals, paper, glass, plastics and organic wastes lessens the demand for energy and raw materials. For example, producing aluminium from scrap instead of bauxite cuts energy use and air pollution by 95 per cent. As industrialization consolidates in developing countries, these countries will generate considerably greater quantities of waste which, if recycled, will make significant contributions to preserving the environment and ensuring sustainable economic growth.

Under the project of waste recycling and re-use in developing countries, initiated during the last quarter of 1990, provision has been made for international consultancy services in the form of a sub-contract to co-ordinate the overall research and provide specialized inputs in the areas of socio-economic, environmental and solid-waste-management skills.

UNCHS (Habitat), through its Division of Research and Development, will manage the sub-contract and will be charged with broad policy guidance and project co-ordination. However, local professionals will be engaged to undertake the requisite country-level research. For example, detailed research investigations will be conducted in selected cities of participating developing countries to identify socially-relevant, economically-sustainable approaches and practices for recycling domestic solid wastes giving due emphasis to source segregation and subsequent reprocessing of waste materials through safe small-scale cottage-based waste-recycling industries. In addition, two regional workshops are planned: the first to review emerging policies and strategies for waste recycling and the second to disseminate the findings of the project.

The objective of the research is to contribute to the efforts of developing-country governments in order to help abate the degradation of the urban environment by identifying and promoting economically-efficient, environmentally-sound practices for managing municipal solid wastes that take

advantage of waste reuse. Particularly the urban poor will benefit greatly from this project as they are the ones who currently bear the brunt of environmental degradation. It will offer not only a cleaner environment in which to live but also employment opportunities, health protection and economic development.

An overview of training activities

UNCHS (Habitat) continues to carry out workshops, courses and seminars as part of its training programme. These are aimed at strengthening of national capabilities in the shelter sector in English-speaking Africa and Asia, strengthening urban management in Latin America, sub-Saharan Africa (both English- and French-speaking), and strengthening municipal management in North Africa.

For a dozen years, UNCHS (Habitat) and the General Administration for Development Co-operation of Belgium through the Post-Graduate Centre for Human Settlements of the Katholieke Universiteit, Leuven (PGC-KUL) have been implementing a series of workshops, courses, and seminars on housing in development. Aimed at shelter-sector professionals in English-speaking Africa and Asia, the programme has been changing in response to changing needs, e.g. by emphasizing new approaches and including the training of trainers (TOT) as a specific component. Since April 1989, three such activities have been held: a training course at Leuven, Belgium for participants from English-speaking African countries, a workshop at Bandung, Indonesia, for participants from Asia, and an international workshop at Algiers, Algeria.

The component aimed at strengthening urban management in Latin America involves regular partnership between the Centre and the Federation of Canadian Municipalities, the Economic Development Institute (EDI) of the World Bank and International Union of Local Authorities IULA/CELCADEL -- with occasional aid from the German Agency for Technical Co-operation (GTZ) and the United States Agency for International Development (USAID). Following the first training of trainers course in July 1989, a multi-year SACDEL (Support System for Local Government Training) Programme was initiated. Still in its pilot phase, it has undertaken five regional training activities between April 1989 and December 1990. These are:

- a training course in financial management of metropolitan areas in Latin America (San José, Costa Rica),
- a training course on urban finance and management for intermediate cities in Latin America (Quito, Ecuador),
- a policy seminar on training and institutional development strategies for Municipal development in Latin America (Bogotá, Colombia),
- a training course on management of local government projects in Latin America (San José, Costa Rica), and
- a workshop on methods for selecting and promoting municipal projects (Bogota).

UNCHS (Habitat) also co-operates with EDI of the World Bank and with USAID in strengthening urban management in English-speaking sub-Saharan Africa. In this case recent activities include two TOT courses and course-design workshops. One TOT course was held in collaboration with the Government Training Institute of Mombasa, Kenya; the other involved the co-operation of the Malawi Institute of Management and Ministry of Local Government of Malawi. The Course Design Workshop took place at Nairobi in the interim. The latest such course, held in Lilongwe, Malawi in November 1990, is reported on in a following article.

In the case of the subregional programme for strengthening urban management in French-speaking sub-Saharan Africa, the Centre's project partners are the Centre de perfectionnement et de formation en cours d'emploi (CPF) of Burundi and EDI. Initiated in 1985, this five-year programme included two courses and two policy roundtables organized in Abidjan, Côte d'Ivoire (1987) and Dakar, Senegal (1988) to strengthen the training capabilities of selected training institutes, centres and units in the subregion. The final activity of the programme, organized in collaboration with the CPF, was a workshop which took place in Burundi in June 1990 and focused on training skills and content. A new, demand-driven, programme may start in 1991, building on the results of the previous effort.

Strengthening municipal management in North Africa is a subregional programme which is part of the Urban Management Programme (see also article under the technical co-operation section of this newsletter). Project partners include EDI, the Regional Office for Housing and Urban Development (RHUDO) of USAID and the ministries of the interior of Algeria, Morocco and Tunisia. A policy and design seminar on training in urban management was held early in 1989 to identify and prioritize pilot training activities towards strengthening municipal finance development. The three-year priority pilot activities included training of trainers, training needs assessment, and development of training materials. Specific activities have been, and will continue to be, covered in this newsletter.

Training as portrayed here is an important component of the UNCHS (Habitat) work programme

Malawi hosts TOT Course on Urban Finance and Management

As part of a series of such courses conducted by UNCHS (Habitat), the Economic Development Institute of the World Bank, and the United States Agency for International Development, and with the co-operation of the host-country Government, a Training of Trainers (TOT) course on urban finance and management for English-speaking African countries was held at Lilongwe, Malawi, from 29 October to 23 November 1990. The official ceremony -- which included speeches by H.E. Mr. Stanford Demba, the Minister of Local Government; Ms. Kirsten Leitner, then UNDP Resident Representative; and Mr. Tomasz Sudra of UNCHS (Habitat) -- was reported in the local press and broadcast over the radio by Malawi Broadcasting Corporation.

All but one of the 27 participants from eight countries in the region (Kenya, Lesotho, Malawi, Swaziland, Uganda, United Republic of Tanzania, Zambia and Zimbabwe) had training responsibilities in urban local management and finance. They were taught by two Malawians and two Kenyan senior trainers, an international consultant and two UNCHS(Habitat) trainers. The Ministry of Local Government and the Staff Training College also provided inputs, as did the Malawi Institute of Management and the Lilongwe City Council.

The course was innovative in a number of ways. The most important was the integration of field work and training consultancy through the Lilongwe City Council. Participants worked with all levels of LCC officials and staff from the mayor and city clerk to lower-level supervisors and workers. They assessed current management practices, identified problems and, where appropriate, the resulting training needs, defined training strategies, designed training programmes and implemented a short training activity.

To do so they divided into five working groups to deal with five problems areas following initial meetings with LCC officials.

The areas identified were:

- revenue generation,
- career development/motivation,
- rest-house management,
- maintenance management, and
- performance of councillors (the elected officials of the city council).

The first three weeks were given over to negotiations with the LCC, field work and development of the training strategy, and design and preparation of the training activities. On the Monday of the final week, course participants conducted five parallel full-day workshops/seminars for 86 Malawian Local Government officials, most of them from the LCC. The rest of that week was spent on evaluating the work of those five teams, developing country-action plans and proposals for potential regional interventions, plus course evaluation.

During all four weeks of the course, parallel to the above-mentioned activities, a series of sessions was held discussing and practising a variety of training methods, skills and techniques. One session was devoted to the Global Strategy for Shelter and its implications for local urban governments, and another to UNCHS (Habitat) -- what it is and what it does.

The continuous (daily and weekly) evaluation was an important feature of the course, reinforcing the detailed written evaluation and extensive discussion at the end. Participants felt the course had been useful in teaching them training methods and techniques, various stages of the training process, and innovative approaches -- especially the field project with LCC. Though they had expected to have more sessions devoted to technical aspects of general and financial management, they found the course to be very relevant to their present work, and to specific job tasks. In fact, they requested a repetition of the current course for a new set of trainers and training institutions, and a regional policy seminar on the importance, methods and techniques of demand-driven, client-centred training to be held for high-level policy-makers and heads of training institutions.

UNCHS (Habitat)/KUL Seminar on Housing in Development

As part of the continuing co-operation between UNCHS (Habitat) and the Katholieke Universiteit Leuven (KUL), an International Seminar on Housing in Development was held at Algiers from 1 to 12 December 1990. The Seminar was attended by 29 participants from Algeria, China, Egypt, India, Libyan Arab Jamahiriya, Morocco, and Pakistan. They included six trainers and university professors. Seven women, all from Algeria, took part. The Seminar was co-sponsored by the Direction de l'Architecture et de l'Urbanisme of the Ministère de l'Equipement, with the support of the central research office of the Ministry, BEREP.

There was a mixture of presentations of research results, specific projects and case studies plus analyses of specific housing environments in Algeria for which proposals had been developed by the participants. These environments included

TOT Course participants together with representatives from among the Workshop participants.

- the lower Casbah, a deteriorated historical residential area in the city centre;
- Frais Vallon, a relatively underdeveloped area close to the city centre which is subject to strong urbanization pressure and partly occupied by low-income people;
- Bab Ezzouar, a large public housing project of the 1960s with poorly-defined and maintained public spaces and vacant land;
- les Eucalyptes, a large (100,000 inhabitants) spontaneously-developed group of peri-urban residential areas lacking urban services and infrastructure but recently recognized as an urban municipality.

In the last case, course participants collaborated closely with representatives of the new municipal council and the architect/planner of the municipality. In each case, participants' proposals contributed to current professional discussion. The Seminar also provided an opportunity for the exchange of information about innovative experiences and new developments in participating countries.

An evaluation of the content and methodology of the Seminar showed the high professional quality of the seminar materials, discussions, fieldwork, and resultant proposals -- although policy and strategy issues might have received more emphasis as compared with technical, planning and design considerations.

Municipal Development Programme Conference

A Conference for the Municipal Development Programme (MDP) for Sub-Saharan Africa took place in Bologna, Italy, on 13 and 14 December 1990. It brought together some 20 participants, representing potential donors and support agencies. The Conference had four main objectives:

- presentation of the East African MDP to potential donors and supporters, getting their coments and discussing possible modifications;
- presentation and disucussion of the latest version of the Programme proposal document;
- presentation and discussion of the memorandum of understanding, the main legal document of the project;
- confirmation of donor contributions and of in-kind inputs of support agencies.

Among the distinguished speakers at the opening were

- H.E. Mr. Alessandro Serafini, Minister Plenipotentiary, Director General for Co-operation and Development of the Ministry of Foreign Affairs (who spoke of Italian development assistance);
- Mr. Jean Doyen, Division Chief, Technical Department, Infrastructure Division, Africa Region of the World Bank (who presented the principal features of the MDP);
- Mr. J. Fitz G. Ford, of the World Bank, Senior Economist and Co-ordinator, Urban Management Programme (UMP).

Mr. T. Sudra on behalf on UNCHS (Habitat) presented material on the capacity-building strategy of the UMP, UNCHS (Habitat) experience in municipal development training in East and Southern Africa, and its lessons for MDP (with special emphasis on the Malawi TOT course of November 1990) and lessons from a similar programme in Latin America.

A draft of the memorandum of understanding was discussed during the meeting. The programme proposed is to be further developed through a joint effort of UNCHS (Habitat), UNDP, the World Bank and other agencies. The Programme is going to be launched at Harare (where the Programme Unit will be located) immediately following the thirteenth session of the Commission on Human Settlements. The Programme-launching Conference is to be held on 9, 10 and 11 April 1991.

The Municipal Development Programme for Sub-Saharan Africa

The Municipal Development Programme (MDP) is a regional programme to be initiated as a joint undertaking of The World Bank, UNCHS (Habitat) and ESAs, in partnership with African governments and institutions. Its purpose is to analyse and improve the policy framework for enhancing the effectiveness of urban local governments; and expand the building of related human resource capabilities. The MDP will help provide a common framework for evolving the analytical capability and resources to enhance the effectiveness of Sub-Saharan municipalities. The MDP, guided by a Steering Committee consisting of African policy-makers and specialists, and representatives of development agencies, will have two modules and programme offices, one for Western Africa in Lomé, and one for Eastern Africa, in Harare. A number of ESAs as well as UNDP, have expressed interest in supporting the MDP; the GTZ (Germany) has committed funding for the Western African facility. Both modules will operate in close collaboration and co-ordinate activities.

The MDP will support activities in four interrelated areas. (a) analysis on matters of local government policy; (b) local government training; (c) assistance to local government activities; and (d) support for African associations of local governments. Specific activities making up the programme will be identified and carried out by African partner institutions and/or experts.

The MDP will provide African governments, municipalities, institutions and NGOs with a vehicle that will contribute to the understanding and resolution of issues confronting municipal governance. It is designed to complement and support on-going initiatives, in particular, the UMP. The MDP is an instrument to help expand those efforts in a co-ordinated and sustained way.

The UMP and MDP will be programmes working in close collaboration. The MDP will provide UMP with the subregional facilities and mechanisms through which to apply its African focused activities. The UMP wil help identify key issues for, and contribute to, suggested methodologies to be applied to MDP administered activities. The MDP will disseminate the UMP outputs, and apply these in the Sub-Saharan African context through its activities, as follows:

- All UMP activities that deal with municipal development and that concern the Sub-Saharan African region will be co-ordinated with, or handled through the MDP as joint ventures.
- The UMP is to take the lead in activities related to research, methodolody, and co-ordination.
- The MDP will address the comparative policy development activities and policy dissemination, training and training strategies; operational support to municipalities; and strengthening of associations of municipalites.

Source: UNDP, *Urban Management Programme Phase II: Capacity building for urban management in the 1990s.*

Mexico City: rehabilitation, residential stability and relocation

The inner city of Mexico City had for decades been in a condition of residential stability, for the area provided a good site not only for housing, but also for economic activity, especially in the informal sector. Residents, located at or near their places of work, did not have to spend an inordinate amount of time or money on transport. Thus they were able to save money for their children's education. Rents had officially been frozen in the inner city in 1942, so residences were characterized by a lack of repairs and general physical deterioration. Nevertheless, inhabitants were better off in terms of services (water, sewage, electricity) than counterparts on the periphery of the city.

Such stability can of course be threatened by revaluation of land and properties -- for with increased commercial activity, land values may go up and rents be increased (though in this case they had been officially frozen). Increased land taxes and services are part of the official policy of the Federal District. Less of a threat in time of economic recession are major public works (such as traffic projects or big buildings) and urban renewal programmes, which seek to diminish housing density.

The major change in housing conditions took place as part of the urban renewal projects following the 1985 earthquakes. These brought to the fore the concentration of population in the inner city, the mixture of land use, the decay of rental housing, and the resistance of tenants to being moved. (During reconstruction, they preferred to live in tents in the street while their houses were being rebuilt -- rather than moving to the periphery.) An attempt was made to relocate people at the previous site or, elsewhere within the inner city, before resorting to the periphery.

The 1985 relocation scheme, the most recent and significant in Mexico, was developed by the City Government following the earthquakes. It involved 93,821 housing units and benefited some 500,000 inner-city dwellers. There were some four elements. The first involved over 16,000 units, some within the inner city. Another, reconstruction of Tlatelolco, involved 9744 units. The major two were the popular housing renewal subprogramme, which involved over 3500 plots and the building or reconstruction of 48,800 units, and phase two, designed to take care of those who had not been covered by the popular housing renewal.

These programmes were successful largely because of the active participation of all involved, and the good co-ordination between the Government, financial institutions -- including both the World Bank and private foundations, university, non-governmental organizations and community groups. In phase two, it was found that many people had been living in buildings with densities of over 350 inhabitants per hectare. Families from such crowded buildings were to be resettled in low-density plots, while extra families in a house were also to be moved. Relocation assemblies were created to discuss relocation needs and regulations, and to attempt to maintain residents in the original urban zone. These assemblies decided who would be located where, and chose the design of new houses through various prototypes.

Thus new locations were to be close to the city centre, and to offer opportunities for employment/income generation. Housing was to be low-cost yet durable (with lower seismic risk), offer good sanitation facilities and natural lighting and ventilation. The new residences were designed to offer easy access yet provide privacy, and be integrated with their environment, e.g., to offer a chance for commerce on the ground floor at the street side. A new form of tenure, the neighbourhood condominium, was designed so that tenants would share common areas, and the care and maintenance of these areas plus the infrastructure and services located there. Unfortunately, some new sites were far from the city centre, and did not offer as good opportunities for residents to make a living. Other problems included a lack of social life and of accessible recreational facilities. Finally, social integration was difficult when there were some 200 units in an area.

As a result of these successes and concomitant problems, the inner-city rehabilitation programme offers a number of lessons on how to avoid relocation and develop extensive urban renewal programmes without overly dislocating the population. Of prime importance was the possibility of developing renewal and reconstruction programmes with active public participation and rehousing the same population in their former plots, or at least in the inner-city area.

Where relocation is necessary, however, associated problems can be reduced. An

Urban Renewal Programme of Mexico City (1985-1988)

SECTOR	PROGRAMME	INVESTMENT (MILLIONS OF PESOS)	HOUSING UNITS	BEGINNING	END
PUBLIC	Emergente de Vivienda Fase I	80,385	16,077	Oct 85	Feb 86
	Renovación Habitacional Popular	274,624.5	48,800	Oct 85	Feb 87
	Reconstrucción de Tlatelolco	57,000	9,744	Sep 85	Jun 88
	Emergente de Vivienda Fase II	94,000	12,000	Jul 86	Mar 88
	SUBTOTAL	506,009.5	86,621		
PRIVATE	NGOs' programme		7,200	Oct 85	
	TOTAL		93,821		

Source: Dirección General de Política y Coordinación de Programas de Vivienda, Subsecretaría de Vivienda. SEDUE.

evaluation of the relocation exercise in Mexico City led to the following conclusions:

1. Reproduce the social patterns of communal life. The way of life of inner-city residents is conditioned by multiple factors beyond the housing unit. Public space is an important element, given the multiple activities performed outside the house, and the rich and varied communal life which may be absent in new locations, at least initially.

2. Facilitate employment. Among the multiple facilities offered by the inner city, the most important is the diversity of jobs available through industry, commerce, workshops and a variety of informal jobs, especially in services such as those offered by street vendors. Such jobs will be difficult to generate in new locations, which must at least provide job alternatives, including spaces and sites for the development of informal-sector employment.

3. Offer efficient means of transport. Even if housing, services, and working conditions are satisfactory in the new locations, efficient transport is basic for the relocated populations. Their link with inner-city facilities makes good transport to that area indispensable.

4. Provide economic support. The negative economic consequences for the dislocated population should be compensated by the government, since the public benefit has caused personal losses. Such economic support could take the form of subsides in the pricing of the new house and the conditions of payment. Compensation in this case was given in the form of rental support, "moving" payments, provisional dwelling places during the relocation period, and help with the downpayment on new dwellings.

5. Select new sites wisely. This includes, as we have seen above, efficient transport to the inner city, and adequate infrastructure and services -- as well as employment opportunities.

6. Follow relevant urban and architectural design. In this case, it was found that the clusters of houses should not exceed 40 units, in order to assure good neighbourhood social conditions. Similarly, playing grounds should be planned and supervised by the parents. Allowance should be made for future house expansion. Already residents want the size of the living room and bedrooms increased, and adequate space for laundry and drying to be provided.

7. Give community participation a key role. Active community participation is recommended before, during and after the relocation process. The experience here showed the usefulness of the relocation assemblies, where all the affected people negotiated the best alternative for their relocation. Another important activity was the discussion of urban design, since each group of families has its own preferences with respect to the disposition and use of public space and the specific grouping of housing units.

These recommendations based on a single case study are offered in order that certain technical, social or administrative details may be of use in relocation programmes elsewhere.

Source: Residential stability of the inner city urban poor evaluation of relocation experience in Mexico

Government, United Nations agencies co-operate on workshop in Zambia

In Zambia, three United Nations-assisted projects recently co- operated in organizing and running a workshop on roofsheet making for residents of low-income settlements. Twenty-five participants took part in the workshop, which specifically invited women. Held from 28 January to 8 February,1991, at Kitwe, the workshop offered information and practical training in the production of roofsheets, including the provision of business-organization and book-keeping skills. Training in the design of low-cost sanitation facilities and an emphasis on community participation also played a vital role. This workshop was the second in a series of workshops to be held in Zambia. Technology inputs were provided under the UNDP/UNCHS (Habitat) project "Assistance in promoting low-income housing", business management by the International Labour Organisation-SELP "Project for youth enterprises", and the DANIDA/UNCHS (Habitat) Training programme for community participation in improving human settlements.

The relevance of such a workshop is evidenced by the Government's official policy, which stipulates that the people should build their own housing, with the municipal councils providing land and services. Owner-produced building materials together with owner- built houses can provide shelter at one quarter of the cost at which the councils had been providing them. Quality control is also stressed at these workshops, for it inspires confidence both in the producer and buyer of the fibre-concrete roofsheets, which makes roofing available at half the commercial rate.

Continuing co-operation between the three projects, the Government (through the National Housing Authority or NHA), and NGOs operating in the low-income settlements should allow for the repetition of such workshops for groups from other low-income settlements in the country. A later focus will be on low-cost and low-energy construction materials. Good sanitation will, however, continue to be on the agenda, as will community participation.

On the far left is Mr. Ilunga of the NHA, the co-ordinator of the workshops,and next to him the house owner, Mr. Friend, whose house has been roofed with sheets manufactured at the workshop, and participants at a similar workshop held from 19 to 30 November at Lusaka, Zambia

Human Settlements Atlas: Pilot output operational

The pilot output of the Human Settlements Atlas, which was introduced to readers in the April 1990 issue of UNCHS HABITAT NEWS, is now operational. Developed by co-operation between the Information, Audio-visual and Documentation Division and the Research and Development Division (RDD) of UNCHS (Habitat), it incorporates the Human Settlements Statistical Data Base (HSDB stat), offering map presentations of human-settlements statistics in six categories: demography, land, economy, infrastructure, services, and housing.

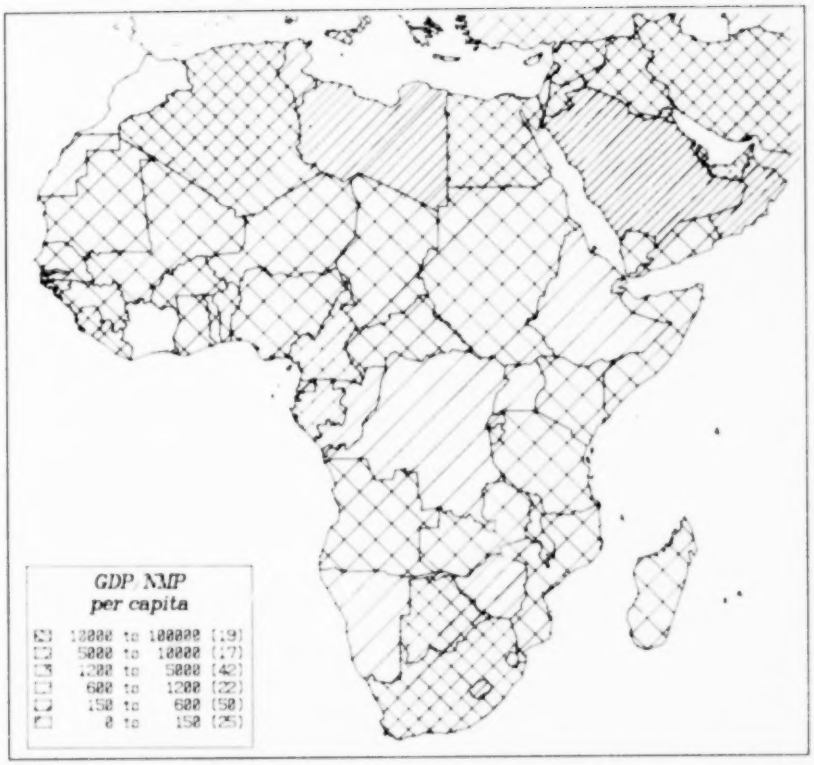
The system can be run on any IBM AT compatible 386-computer which has a 20-mega-byte hard disk. All options are menu-driven, and a mouse can make use easier. This application can use dBASE III files and AUTOCAD (see also article in the August 1990 issue of this newsletter) drawings as input. A number of plotters and printers may be used as output devices.

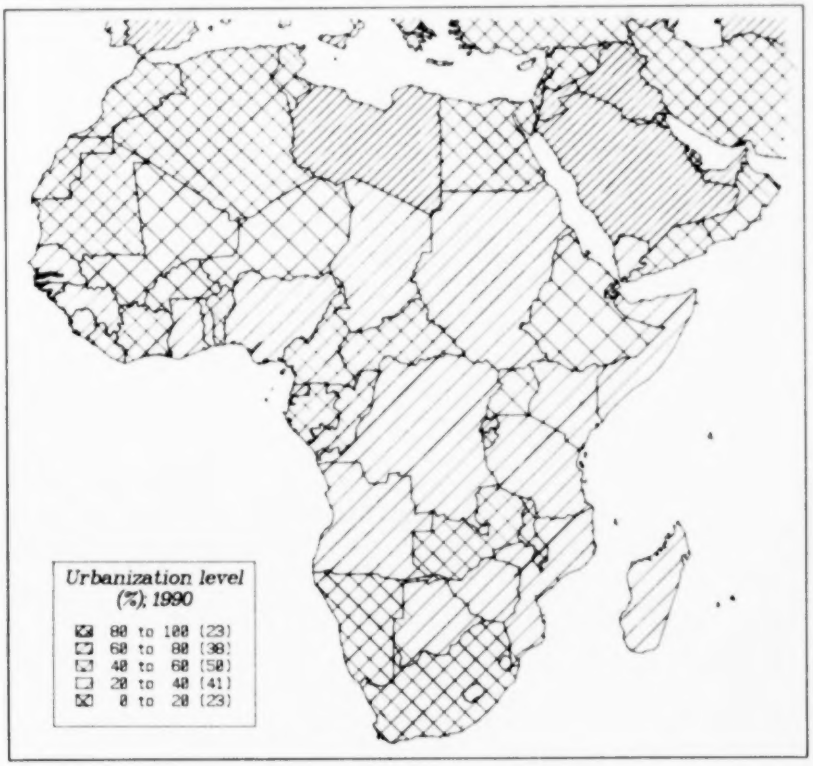
The presently operational pilot output of the Human Settlements Atlas allows the user to choose from the following topics:

- average household size,
- construction-sector employment,
- Gross national product(GNP) /net material product per capita (in $US),
- life expectancy for females,
- life expectancy for males,
- total population growth rate (in percentage)
- total population, and
- level of urbanization.

Each of these topics can be shown on screen and directed to the plotter/printer. Each output can be applied to any part of the world or to one of ten preset geographical areas:

- World,
- Africa,
- Asia,
- South East Asia,
- Australasia and Oceania,





- Europe,
- Middle East,
- North America,
- Central America,
- South America.

The menu-driven options give a standard set of thematic maps using hatching and several colours. The preset classification follows the RDD specifications, but it is possible to modify the value ranges of classification, e.g. to put six categories of GNP rather than nine.

Similarly, it is possible to add the name of individual countries or the absolute statistical value of a certain topic on the picture. The size, colours, and hatching of any plotting produced by the system can be modified. Each layer (e.g. country boundaries, different classification categories) can be plotted as a separate print element for completion by a printing press, allowing for the best possible quality of reproduction.

It is also possible to apply these features to technical co-operation projects. If the country boundaries are sufficient, the only requirements are a dBASE table containing the information provided by, for example, the Technical Co-operation Division, and a list of presentation needs defined by that Division.

While the present application uses only country boundaries, the technique can be used at the level of regional or urban planning. The MapInfo software is one of the inexpensive packages, but there are several similar packages on the market to meet more sophisticated needs. An inventory is underway to investigate all such packages that could be used for human-settlements planning and administration. Later this year it should be possible to use the results, e.g. in technical co-operation projects.

A future for the past

Only a little more than five years ago, the Old Stone Town of Zanzibar, United Republic of Tanzania, was almost without hope. After each rainy season it was increasingly unsafe to walk in the area, let alone live in one of the old dwellings, many of which date back to the late nineteenth century. Quite a number of poorly-maintained buildings collapsed and many lives were lost.

Today, a visit to the Old Stone Town reveals a very different situation. The settlement is bustling with life and a new sense of hope. Here and there, one finds renovation works in progress, some large-scale projects, others individual small-scale improvement activities. Slowly but surely the Old Stone Town is coming back to life and it holds the promise of providing a unique living environment for future generations.

The story behind this transformation is presented in a new short video on the Old Stone Town of Zanzibar called "A Future for the Past". Produced in December 1990, it briefly reviews the history of the Stone Town and describes the evolution of Stone Town Conservation and Development Authority and the Stone Town Rehabilitation Programme which is supported by UNCHS (Habitat), the United Nations Development Programme and other external funding agencies.

The video provides a series of lively images of the exotic living environment of the Stone Town and its importance as a unique habitat for its residents. It contrasts this traditional environment with the high-rise housing scheme at Michenzani immediately to the east of Stone Town.

It also explains the traditional coral-rock and lime building technique as it is applied in the restoration of historically important buildings like Kilosa House and the former Sultan's Palace.

International Building Information Congress

The International Building Information Congress, BI'91, will take place at Stuttgart, Germany, from 7 to 11 October 1991. The theme this year, which is the 50th anniversary of the Information Centre for Regional Planning and Building Construction (IRB), is "Building and planning needs information". The main topics will be building information for Europe, information on avoiding damage to buildings, information for building and planning in developing countries, and information for town development and regional planning.

A specialist exhibition is planned parallel to the Congress -- which is co-organized by IRB, the International Council for Building Research, Studies and Documentation (CIB), the International Union of Building Centres (UICB), and the International Association for Building Documentation (IVDB).

(Further information from: IRB of the Fraunhofer Gesellschaft, Nobelstrasse 12, D-7000, Stuttgart 80, Germany)

Women professionals database being established

The Habitat International Coalition (HIC) Women and Shelter Network in its newsletter of November requests women professionals with experience/expertise in the field of human settlements and sustainable development to get in touch so that they might be included in a database.

Women knowledgeable in such human-settlements-related areas as land legislation, housing policy, housing finance, employment creation, building materials and construction, appropriate technology and community mobilization are asked to send their *curriculum vitaes* to the Network for incorporation in a database.

Information should include name, address, telephone contacts at home and work, plus an alternative number, fax/telex numbers, place of present employment, languages spoken/read/written, personal professional interests and full experience -- including publications.

(Further information from: Women and Shelter Network, P.O. Box 14564, Nairobi, Kenya)

UNCHS through others' eyes

UNCHS (Habitat) publications are often used as background material or discussed directly in other books and journals. This issue of UNCHS HABITAT NEWS, for example, reviews articles in two journals which draw on the Centre's publications -- *Environmental Impact Assessment Review* number 10 of 1990, and *Waterlines* number one of 1990.

In the first case the article on "Mega-cities, the environment and private enterprise..." by Kasarda and Rondinelli cites a UNCHS publication and the official newsletter in its references, while the latter reviews the work of the Centre with reference to "Sewerage for low-income communities in Pakistan" and "Low-cost unconventional sewerage in Brazil and Pakistan", both these articles cite the UNCHS (Habitat) publication *The design of shallow sewer sewer systems* (HS/100/86). Further details may be found under the Publications section of this issue.

The poor die young, edited by S. Cairncross, J.E. Hardoy, and D. Satterthwaite, is an example of a recently published book (Earthscan, London, 1990) which draws on UNCHS (Habitat) publications.

NEW FROM HABITAT

■ Bibliographic Notes: Solid-waste management, No. 18 (December 1990), 5 pp. ISSN 0257-7216

This issue of *Bibliographic Notes* includes 19 items -- books, periodicals, reports and theses on the topic of solid- waste management -- arranged in alphabetical order by title. These range from *City Profiles*, a 64-page report on 16 cities compiled from contributions at a United Nations Centre for Regional Development Seminar held in October 1989, to *Work from Waste: Recycling wastes to create employment*, a 396-page volume produced by Intermediate Technology Publications and OXFAM in 1983.

■ The economic and technical viability of various scales of building materials production, Iii plus 49 pp., tables HS/180/89E, ISBN 92-1-131103-9

This report is meant for high-level technical personnel -- professionals who deal with economic and technical decisions on the promotion of the local-building-materials sector in developing countries. It is based on empirical evidence from a sample of developing countries and covers the basic building materials of significance to the attainment of the targets of the Global Strategy for Shelter. For countries interested in promoting other materials, the important issue is the method of investigation depicted in the report, which was drawn from a combination of comprehensive technical and economic factors and should be valid for those other materials.

The report is made up of five chapters and a rather comprehensive set of annexes. Chapter I provides a comprehensive background to the general principles of technological scale by dwelling on the significance of scale of technology in the promotion of local building materials. Chapter III deals with the technical viability of various scales of building-materials production based on an analysis of case studies mainly from Egypt, Ghana, India, Mauritius and the United Republic of Tanzania. Chapter II dwells on the economic viability of alternative scales of building-materials production, using the same case studies.

In chapter IV, the focus is on cementitious materials; it provides an analytical basis for decision-making on alternative scales of producing a variety of such materials. The country examples covered include Botswana, China, India and the United Republic of Tanzania. Finally, chapter V provides a set of conclusions for the study, with sections on raw materials, energy, labour, and on machinery, equipment and capital assets. The annex offers summaries of the country case studies which formed the basis of the analysis presented in chapters II and III.

EVENTS

■ Public/Private Partnerships in Urban Mobility

In our cities the movement of both people and goods is hindered by growing congestion. There is also a serious threat to the environment and interference with economic activity. To meet these problems, a number of countries are trying out new transport management methods, or building new infrastructure (public transport, road systems, etc.) without involving public money. These approaches are increasingly involving partnerships between the public and private sectors.

Public/private partnerships in urban mobility is the theme of an international conference organized by CETUR (Research Center on Urban Mobility) and the Group on Urban Affairs of the Organisation for Economic Co-operation and Development, from **3 to 5 April 1991** at Paris. The aim of the Conference is to describe the scope of these partnerships and to identify their advantages and limitations.

(Further information from: Convergences - PPM '91, 120, avenue Gambetta, 75020 Paris, France. Telex: 216911F. Telefax: 33 1 40310165)

■ Technology in the third millennium: Housing

What are the emerging global determinants, expectations and opportunities for meeting appropriately the housing needs of growing, shifting and changing populations? What might be the complementary evolution in the planning, design and construction of housing in the developed and developing world?

To attempt to answer these questions, a Royal Society Meeting on Technology in the Third Millennium: Housing will take place on **11 and 12 June 1991** in London. Fundamental issues of geopolitics, resources and finance will provide a framework for the creative activities of those concerned with all aspects of housing, including the supply of building materials and installations of the future. The audience is expected to comprise predominantly architects, engineers and scientists with a sprinkling of strategists and planners.

(Further information from: Scientific Meetings Secretary, The Royal Society, 6 Carlton House Terrace, London, SW1Y 5AG; U.K.)

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■ World Congress on "Environment, health, and lifestyle"

The 30th World Congress of the International Union of Local Authorities (IULA) is to take place at Oslo, Norway, from **23 to 27**

June 1991. The main theme of the Conference, which is being sponsored by the Organisation for Economic Co-operation and Development (OECD), is "Environment, health and lifestyle". It is expected that UNCHS (Habitat) will take part in the event, as will over 2,000 political leaders and local officials from over 70 countries.

The ten seminars will conclude with a final declaration, to be presented to the United Nations Conference on Environment and Development (UNCED) to be held in Brazil in 1992.

Further information from: XXXth IULA Congress, 41 Wassenaarseweg, P.O. Box 90646, 2509 LP, The Hague, The Netherlands.

■ Conference on Housing Strategies for the 90s

An International Research Conference on Housing Strategies for the 90s is being organized by the Research Committee on Housing and Built Environment (ISA) to be held at Chandigarh, India from **25 to 28 September 1991**. The Conference would invite the attention of policy-makers, urban planners, housing experts, researchers and other concerned organizations to diagnose the fundamental issues regarding housing and built environment in the Asia/ Pacific region and in other developing countries of the world.

(Further information from: Guru Ramdas School of Planning, Guru Nanak Dev University, Amritsar-143005 East Punjab, India)

■ Developing enabling strategies for shelter: Local involvement and planning

An international conference for planners and housing officials on the Global Strategy for Shelter to the Year 2000 entitled "Developing Enabling Strategies in Shelter: Local Involvement and Planning - an Action-Oriented Approach" will be held at Ottawa, Canada from **17 to 19 October 1991**.

Further information from: CAP Secretariat, 404-126 York Street, Ottawa, Canada, K1N 5T5. Telephone: 613 233-2105. Telefax: 613 233-1984.

■ Meetings on global climate change

African perspectives

Meeting at the headquarters of the United Nations Environment Programme, Nairobi, Kenya, an International Conference on "Global Warming and Climatic Change: African Perspectives" took place from 2 to 4 May 1990. Organized by the African Centre for Technology Studies (ACTS) and the Woods Hole Research Center, Massachusetts, United States of America, it drew up a Nairobi Declaration on Climatic Change.

The Declaration included recommendations to reduce greenhouse gas emission and implement strategic planning to deal with the anticipated effects of climatic change. Governments in the region were called upon to, *inter alia*, involve non-governmental organizations (NGOs) in implementing research and community action programmes -- including information dissemination and education -- and to encourage the local private sector to develop and market environmentally sound and energy-efficient technologies within their own countries and regionally.

(Further information from: ACTS, P.O. Box 45917, Nairobi, Kenya)

Asia and the Pacific

The Biology Section of the Science Society in Thailand extended the context of its annual conference (Bangkok, 22 to 24 October 1990) to encompass Asia and the Pacific and to discuss "Global Change: Effects on Tropical Forest, Agricultural, Urban and Industrial Ecosystems".

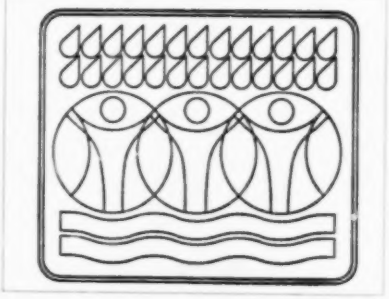
Hosted by a number of Thai organizations -- academic and governmental -- it was to be supported by the International Tropical Timber Organization and the German Man and the Biosphere National Committee. Topics to be covered included changes in land use, deforestation, industrial development and urbanization; and preventive measures by the international community, international and local scientists and other experts.

(Further information from: Department of Biology, Faculty of Science, Ramkhamhaeng University, Bangkok 10240, Thailand)

COURSES

■ CEFIGRE

CEFIGRE (Centre de formation international à la gestion des resources en eau) was created in 1977 by the combined efforts of the French Government and the United Nations Environment Programme in order to improve water-resource management in developing countries. Their 1991 programme includes numerous international training courses which are mainly designed for managers and engineers from developing countries. They are organized either at CEFIGRE headquarters in Sophia Antipolis (France) or in the countries themselves in co-operation with local or regional partner institutions. The present programme includes a series of courses in the fields of ENVIRONMENTAL MANAGEMENT and URBAN WATER SUPPLY AND SANITATION.



(Further information from: CEFIGRE, Sophia Antipolis, B.P. 113, 06561 Valbonne, France)

■ Centre for Environmental Management and Planning (CEMP)

CEMP is an Environmental Division of Aberdeen University Research and Industrial Services (AURIS) Ltd. Since 1972 it has undertaken research, training, consultancy and the provision of environmental information services in many aspects of environmental management and impact assessment.

The 6th and 7th THREE-MONTH INTENSIVE TRAINING COURSE ON ENVIRONMENTAL ASSESSMENT AND MANAGEMENT will be held at the University of Aberdeen from **30 June to 20 September 1991 and 28 June to 18 September 1992**, respectively.

In addition, the 12th and 13th INTERNATIONAL SEMINARS ON ENVIRONMENTAL ASSESSMENT AND MANAGEMENT will be held at the University of Aberdeen from **7 to 20 July 1991 and 5 to 18 July 1992**, respectively.

(Further information from: Centre for Environmental Management and Planning, 23 St. Machar Drive, Old Aberdeen AB2 1RY, Scotland, U.K.)

CEMP

■ CRATerre

The International Centre for Earth Construction, CRATerre, is offering a cycle of intensive courses on earth construction. That on the PRODUCTION OF COMPRESSED EARTH BLOCKS will be held from **23 to 27 September 1991** and that on DESIGN AND CONSTRUCTION WITH COMPRESSED EARTH BLOCKS from **30 September to 4 October 1991**. These courses are intended for professionals and key technical staff: project managers, brickwork managers, contractors, equipment manufacturers, decision-makers, development workers, engineers and researchers. The main objectives are to inform those at a decision-making level about the possibilities of compressed earth blocks, their production process and their specific needs for architectural detailing, in order to define objective decision-making criteria to make a choice of equipment.

In the first course (a French-language version of which was held earlier in the year) the production of compressed earth blocks will be treated in detail, starting from the raw material (earth) and going up to the final product, followed by an overview of the international range of production equipment and the selection and utilization criteria related to this equipment. Finally, a computer simulation of a feasibility study will be presented. The second course gives an introduction to problems of pathology (humidity and structure) followed by an overview of design guidelines related to the use of compressed earth blocks in construction projects.

(Further information from: CRATerre Secretariat, Centre Simone Signoret, BP 53, F-38090 Villefontaine, France. Telephone: (33) 74 96 60 56. Fax: (33) 74 96 04 63)

■ Indian Institute of Remote Sensing

The Indian Institute of Remote Sensing, formerly known as the Indian Photo-interpretation Institute, was set up in 1966 under the aegis of the Survey of India, with the collaboration of the Government of The Netherlands. The Institute, the first of its kind in South-East Asia, became a part of the National Remote Sensing Agency (NRSA) in July 1976.

Policy/decision-makers, other senior planners and administrators engaged in planning activities are invited to attend a five-day WORKSHOP IN REMOTE SENSING TECHNOLOGY **the first week of November 1991.**

The POST GRADUATE DIPLOMA COURSE IN HUMAN SETTLEMENTS ANALYSIS is a ten-month programme structured into three modules which may be spread out over a period of two to three years. Each module will include lectures and practicals on the following subjects: Module 1 (3 months) on basic technology and concepts, Module 2 (4 months) on applications and computer use, and Module 3 (3 months) with case studies.

(Further information from: Head, Indian Institute of Remote Sensing, 4, Kalidas Road, Post Box No. 135, Dehradun-248 001, (U.P.), India. Telephone: 24583. Telex: 0585-224. Cable: REMOTIPI)

IHS INSTITUTE FOR HOUSING STUDIES

■ Institute for Housing Studies

The Institute for Housing Studies and the International Water and Sanitation Centre (IRC) in The Netherlands are offering a special COURSE ON WATER SUPPLY AND ENVIRONMENTAL SANITATION FOR LOW-INCOME URBAN COMMUNITIES from **2 to 20 September 1991**.

This intensive three-week course is especially designed for planners, engineers, health officers and other staff responsible for planning and implementation of community water supply and sanitation in urban low-income areas. The course aims at widening their knowledge in this field and to exchange and discuss international experiences.

(Further information from: IRC - International Water and Sanitation Centre, P.O. Box 93190, 2509 AD The Hague, The Netherlands.)

The Institute for Housing Studies (IHS) will hold its 59th INTERNATIONAL COURSE ON HOUSING, PLANNING AND BUILDING (ICHPB) from **16 January to 5 June 1992**. The five-month course, conducted in English, is designed to assist professionals from developing countries to assess housing policies and increase their capabilities to deal effectively with housing programmes and projects.

The ICHPB concentrates on the housing of low-income people, which is viewed as an evolutionary and participatory process, a system of interactions between institutions and residents that gives shape to human settlements. The course is divided into four workshops: housing policy and evaluation, urban management and planning, evolutionary housing design, and technology management.

Candidates should have professional experience and be engaged in work related to the field of low-income housing, should have a first degree, and be proficient in English. The closing date for registration is 1 September 1991.

(Further information from: the Registrar, I.H.S., P.O. Box 20718, 3001 JA Rotterdam, The Netherlands)

■ Marburg Consult

The Marburg Consult for Self-help Promotion is a consulting firm whose primary aim is to make the state-of-the-art knowledge in the fields of self-help and self-help promotion available to those interested in the industrialized and developing countries, to contribute to its application in practice, and to actively support the exchange of experiences between those promoting self-help.

Among the seminars offered in 1991 are

--**5 to 30 August 1991**, MANAGEMENT DEVELOPMENT AND SELF-HELP PROMOTION FOR SMALL-SCALE

ENTERPRISES IN DEVELOPING COUNTRIES;

--**7 October to 29 November 1991**, MANAGEMENT OF SELF-HELP ORGANIZATIONS IN DEVELOPING COUNTRIES.

(Further information from: Marburg Consult, Bahnhofstr 1, D-3550 Marburg/Lahn, Germany. Telephone: (06421) 681168. Telefax: (06421) 62187)

■ Oxford Polytechnic

The School of Planning, Oxford Polytechnic is now offering a new 12-month MSc IN URBAN PLANNING IN DEVELOPING COUNTRIES. The course may be linked to the professionally-recognized DIPLOMA IN URBAN PLANNING, giving a dual qualification for a 24-month period of study. These programmes are intended for those who wish to enhance their professional capabilities and to develop their research, analytical and operations capacity in planning for rapid urban growth. The programmes are appropriate for officers with some experience in planning, land-development and housing agencies at city, regional or national levels. The Diploma consists of a comprehensive study programme to consolidate professional skills and technical capability in policy formulation, with an emphasis on enhancing implementation capability.

The MSc degree examines in greater detail the theory and practice of urban planning in societies undergoing rapid economic, social and spatial change. It focuses on three critical aspects of current practice: land markets, land policy and development, land provision; modes of urban planning; and shelter policy and provision. A wide range of additional choice units are available, for example: impact analysis, information technology, comparative planning. Core studies in research methods, policy studies and a thesis are compulsory.

The programmes are delivered on a term-based unit credit system, and commence annually in September.

(Further information from: Oxford Polytechnic, School of Planning, Gipsy Lane Headington, Oxford OX3 0BP, U.K. Telex: G83147 VIA. Telefax: 0865 819550 Telephone: 0865 819)

■ University of London

A MASTERS COURSE ON THE GEOGRAPHY OF THIRD WORLD DEVELOPMENT is being offered by the Department of Geography, Royal Holloway and Bedford New College, University of London from **October 1991**.

The course provides an advanced-level introduction to some of the most challenging problems facing the developing world. A strong emphasis is placed on the contributions made by geographers -- both human and physical -- to the understanding of development and underdevelopment in such countries.

The course emphasizes both conceptual frameworks and techniques for the analysis of development, focusing in particular on the development-environment interface and questions of sustainability.

Candidates will normally be expected to have obtained a degree in geography or a suitable subject from an approved university, with at least second-class honours. The course extends over not less than one calendar year for full-time students and not less than two calendar years for part-time students.

(Further information from: The Registrar (postgraduates), Royal Holloway and Bedford New College, University of London, Egham Hill, Egham, Surrey TW20 0EX, U.K. Telephone: 0784 443450 Telefax: 0784 437520)

■ University of Sheffield

A series of short courses in development studies for administrators and policy-makers in aid, finance, foreign affairs, architecture, economics, engineering and planning are being offered by the University of Sheffield, United Kingdom.

-- MANAGEMENT OF URBAN GROWTH: THE ART OF CONTROLLING DEVELOPMENT; 1 July to 20 September 1991. Intended for mid- and senior-level architects, engineers, planners, economists and administrators, this course will focus upon the newer approaches to growth management in metropolitan cities, ranging from development control to maintenance planning. Emphasis will be placed upon institutional, financial, organizational and administrative structures for effective growth management.

-- RESEARCH TECHNIQUES FOR IMPLEMENTATION MONITORING AND EVALUATION: LESSONS FOR DEVELOPMENT PLANNING; 1 July to 20 September 1991. Designed for project personnel and policy-makers involved in development programmes as well as consultants, this programme will provide a systematic review of approaches and techniques of evaluation and their application in development planning. It will enable participants to acquire skills, access to computer software and the ability to intelligently interpret results and findings.

(Further information from: The Director, Centre for Development Planning Studies, University of Sheffield, Sheffield S10 2TN, United Kingdom, telex 547216 UGSHEF G, fax 0742 722199)

■ University of Wales College of Cardiff

The Department of City and Regional Planning of the University of Wales College of Cardiff offers a BSc/Diploma course, a number of MSc courses and opportunities to undertake research leading to an MPhil or PhD.

The BSc/Diploma COURSE IN TOWN PLANNING is a five-year sandwich course, in which a BSc degree is awarded after three years, the fourth year spent in practice and the final year in Cardiff. The final Diploma provides exemption from the examinations of the Royal Town Planning Institute. Students are expected, where possible, to undertake the practice year in their countries of origin. Optional subjects related to planning in developing countries may be taken in the final year of the course.

Applications should be sent to the Universities Central Council for Admissions.

A two-year MSc COURSE IN CITY AND REGIONAL PLANNING leads to exemption from the final examinations of the Royal Town Planning Institute (RTPI) and also includes a special studies programme in **Planning in Developing Countries**. Core courses in the principles of planning, planning techniques, planning policy, analysis and implementation and planning practice, together with project work, are followed by optional courses, project work and a dissertation on subjects relevant to planning in a student's country of origin.

URBAN PLANNING IN DEVELOPING COUNTRIES is a twelve-month course which aims to provide students both with an understanding of the development processes in urban areas, the scope of planning intervention, the outcome of planning approaches and policies, and approaches to urban management, and with a working knowledge of planning methods and techniques. A choice of optional courses is

available, in addition to project work and a dissertation.

The MSc COURSE IN TRANSPORT is a twelve-month course which emphasizes planning, policy-making and the management of transport. Core and optional courses cover the various modes of transport -- passenger and freight by road, rail, sea and air. The course is recognized by the Chartered Institute of Transport.

A new twelve-month MSc IN TECHNOLOGICAL CHANGE AND REGIONAL DEVELOPMENT (also 9-month Diploma) includes opportunities to analyse processes of regional economic development, study the nature and outcome of policies to encourage regional and local economic development, and learn methods for policy formulation. The course includes a dissertation.

Applicants for the MSc courses should normally hold a good honours degree in an appropriate subject, though other applications will be considered on merit. Opportunities are also available to undertake research leading to an MPhil (one or two years) or PhD (normally three years). Students have succeeded in obtaining sponsorship under the British technical assistance programme, and from other bilateral and multilateral aid agencies, in addition to their own employers and governments.

(Further information from: Admissions Secretary, Department of City and Regional Planning, UWCC, P.O. Box 906, Cardiff CF1 3YN, U.K. Telefax 0222-874845)

■ WEDC

Starting in **April 1991**, the Water, Engineering and Development Centre (WEDC) is offering a new course, WOMEN MANAGERS IN TECHNOLOGY FOR DEVELOPMENT, for women with experience of management of water supply, sanitation, transport, communication, drainage, irrigation, etc. The course will look at Women, society and health, Women in Management of technology, and Women in management of resources.

(Further information from: WEDC, Loughborough University of Technology, Leicestershire, LE11 3TU, U.K. Telephone: 044 509 222885. Telefax: 044 509 211079. Telex: 34319 UNITEC G)

PUBLICATIONS

BOOKS

■ Matthew Edel and Ronald G. Hellman (eds.), Cities in Crisis: The Urban Challenge in the Americas (Bildner Center for Western Hemisphere Studies, the Graduate School and University Center of the City University of New York, New York, 1989), 166 pp., tables, notes, references, index, ISBN 0-929972-04-X (paperback)

This book is the result of a Bildner Center research and colloquia series on the Urban Challenge in the Western Hemisphere, which brings together leading urban scholars, policy-makers from the United States of America, Latin America and the Caribbean to examine the problems of their cities and propose solutions from a hemispheric perspective. The essays presented at colloquia and in this volume deal with urban issues at two levels. Those dealing primarily with an economic or political overview include chapters on São Paulo by Vilmar Faria, and on Mexico City by Orlindina de Oliviera and Humberto Muñoz. Those which focus on more detailed topics include a discussion of public health in Medellín by Hector Abad Gómez and by George Priestley on popular mobilization and government in one municipality of Panama City. In each case, however, specific problems are related to broader issues.

Tentative conclusions point to the need for mutual learning, since there are many common problems despite crucial differences, and some aspects of the urban challenge remain insufficiently studied. Directions for research pointed out in the editors' introduction include increasing economic interdependence (with direct interdependence between cities and the decreasing autonomy of the nation-state), the impact of austerity (not only on the economic and physical conditions in cities but on Latin American urban cultures and social structure), urban leadership (including the role of mayors and of local businessmen) and institutional transferability as a two-way street (e.g. the transfer of community health volunteer/promoter programmes from Cuba to Chile to Colombia, or the tying of social programmes to funds related to specific areas of employment).

■ International Development Research Centre, The Use of Simple, Inexpensive Microbial Water Quality Tests: Results of a three-continent, eight-country research project (IDRC-MR247e of January 1990), vi plus 186 pp., figures, tables, references, list of previously published papers

This document, edited by B.J. Dutka and A.H. El-Shaarawi, has been prepared from the presentations and discussions of a end-of- project meeting marking the end of initial laboratory research on the development of simpler and cheaper tests that would permit the monitoring and classification of drinking-water sources in developing countries. In the six years prior to September 1988, when that meeting was held, IDRC had supported researchers in Brazil, Chile, Egypt, Malaysia, Morocco, Peru, Singapore and Thailand in their examination of promising non-traditional microbiological tests adapted to their particular conditions and needs. The findings of the global research effort are consolidated in this report. (Ed. note: see following review as well.)

■ **IDRC, Water Quality Control Network: Proceedings of the Meeting held in Ottawa, Canada, 20-24 February 1989** (IDRC-MR248e of January 1990, iv plus 28 pp., summary, tables, references

Compiled and edited by P. Payment and W.A. Sanchez, this publication complements the proceedings of the global end-of- project meeting of September 1988 (see previous review), and offers the information presented at a subsequent meeting of scientists from the eight participating countries and from North America. The information is presented in order to stimulate new research initiatives in all countries where conventional bacteriological tests are too expensive and sophisticated to allow for the proper monitoring of drinking water sources. Of the tests used, the H_2S test was found to be the least expensive and easiest to perform. Its modification to a quantitative (mpn) test was recommended to permit classification of water sources, as was further research in its development.

■ **A.K. Jain, The Making of a Metropolis: Planning and Growth of Delhi**, (National Book Organisation, H-39, Green Park Extension, New Delhi 110016), xiii plus 283 pp., copious illustrations, index, ISBN 81-85135-47-9

M.R. Brett-Crowther in his foreword sets the tone for the book when he states that "we must accept the consequences of planning which are mediated by policies designed for the increase of freedom and enlargement of access to the heritage of art and culture -- and the conservation of natural resources." This collection of essays on urban development in the context of Delhi looks at the historical and political evolution of Delhi, ranging from the time when it was "the most graceful and glorious city of the Orient" to the present, "a point in history where it can either take the road to a mean and squalid future, or, if imaginatively handled, to the status of a great metropolis". The author sees the need for an integrated approach and the interlinking of policy in a framework that encompasses national, regional and local levels and with a realism that takes into account social and economic needs. Thus the articles range from policy planning to case studies and cover upgrading of the core city, environmental and ecological conservation, riverfront development, informal settlements and urban villages.

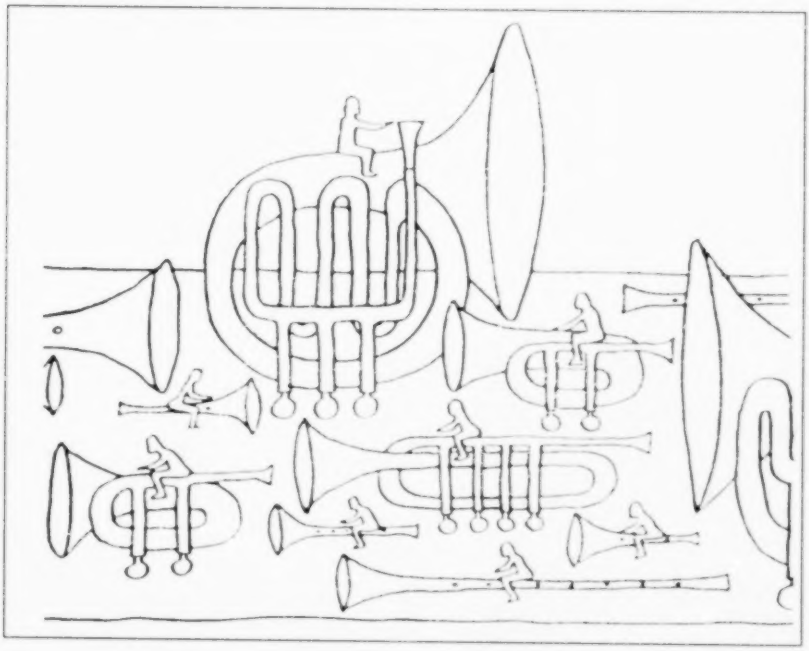
Of special interest is the Papankala Project, part of the proposed urban extensions to the year 2001, incorporating variations on the usual infrastructure and services. These include the use of grade separation/level difference to add to the visual impact, reduce traffic noise in residential areas, and increase efficiency of movement -- and the preservation of one third of the area as a green space. Provision is being made for the creation of jobs both by the Project itself (commercial, industrial, government offices, transport) and from community centres, educational, semi-public and local facilities. The project is intended to absorb urban immigrants, involving them -- as individuals and through co-operatives -- in addition to public authorities.

Jain closes with an "introspection" on town planning in India, in which he outlines what he sees as the fundamental contradictions in present planning practices and outlines an alternative which focuses on the community and the environment.

■ **Henry Sanoff, Participatory Design: Theory and Techniques**, (distributed by the author, 405 West Park Drive, Raleigh, North Carolina, 27605-1743, USA, 1990) ii plus 212 pp., figures, references, bibliography, ISBN 0-9622107-3-0

As the preface points out, involving the user in the design- making process results in effective use of community resources to meet social needs, an increased sense of influence and of the consequences of decisions on the part of the user, and more relevant and up-to-date information for the designer. Each of the contributors is a professional working in the private sector or in conjunction with a university.

The articles, many of which have appeared in *Design Studies*, cover overall topics such as M.C. Comerio's "Design and environment: 20 years of community architecture" and N.J. Habraken's "Towards a new professional role" as well as specific articles dealing with participatory design in the library, office, warehouse and hospital. In his "Community participation based on three-dimensional simulation models" G.J. Hardie demonstrates their use in street and house designs, noting that they are extremely effective when working with a semi-literate population, extracting information about physical forms and the organization of space, providing graphic rather than abstract descriptions of the possibilities.

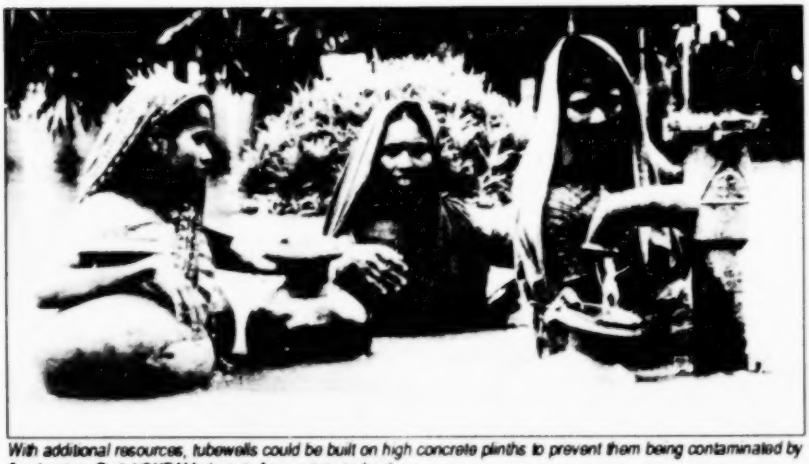


"Delhi Traffic" by British Architect Patrick Crooke as shown in The Making of a Metropolis: Planning and Growth of Delhi.

■ **Appropriate Technology**, vol. 17, No.1 (June 1990)

This issue of the Intermediate Technology publication focuses on natural disasters, with the lead story by Ian Davis of the Disaster Management Centre, Oxford Polytechnic, on the role of non-governmental organizations (NGOs). Participants at the October 1989 seminar held by that institution pointed out that NGOs can and do play a key role in disaster mitigation -- providing inexpensive practical techniques (as in Jamaica, Peru and the Sudan), stimulating public awareness (as in Bangladesh), and taking a long-term view.

Articles presented emphasize these three issues. They include one by Alison Barrett on floods in Bangladesh, and another by Theo Schilderman on earthquake protection for poor people's houses. A disaster-planning resources guide is also offered.



With additional resources, tubewells could be built on high concrete plinths to prevent them being contaminated by flood water. Bedal/OXFAM photo in Appropriate technology

■ **Centro de Investigaciones CIUDAD, Ciudad Alternativa** (CIUDAD: Anita García B, Casilla Postal 8311, Quito, Ecuador)

With its first issue (October to December 1989) this new tri-monthly magazine announces its intention to present democratic and popular alternatives for cities in a time of crisis, looking at the causes, consequences and contents of various problems and solutions.

It is based in Ecuador, and offers articles on water supply in Guayaquil and popular movements in Cuenca, but goes on to discuss Ecuador in a Latin American context, in an article by J.L. Coraggio. A contribution by Mons. Leonidas Proaño speaks of Brazilian conditions as part of the social thought section; it is supplemented by three other interviews on various topics but all based in Brazil. Thus both specific situations and broader issues are aired. Future numbers will discuss popular movements in Argentina, Mexico and Peru as well as such topics as youth in Ecuador and the city and the Indians.

■ **Environmental Impact Assessment Review** 1990, 10

John D. Kasarda and Dennis A. Rondinelli in their "Mega-cities, the environment and private enterprise: toward ecologically sustainable urbanization" point out both the advantages of mega-cities (those with a million or more residents) and their negative impacts, stating that "While world urbanization appears irreversible, ecologic deterioration and environmental degradation are not." They then identify how the public and private sectors can work together to achieve ecologically sustainable urban development. Private sector contributions, they feel, can play a crucial role in several areas: the development of methods and technologies for environmental protection, the reduction of air and water pollution in urban areas, the efficient collection and safe disposal of industrial and commercial wastes, and the disposal of household waste and refuse. Examples of glass recycling and of composting are cited as what is already working.

Supported by some 37 references, the article gives a good overview of problems and possibilities in a crucial area.

■ **United Nations International Research and Training Institute for the Advancement of Women (INSTRAW), INSTRAW News: Women and Development**, vol. 13

This issue deals with the vital role of women in water and sanitation. As the editorial points out, not only are women the primary carriers and end users of water, they are most at risk from polluted sources, an important factor when we realize that water-related diseases represent four fifths of all illnesses in the developing world.

INSTRAW News 13 deals also with women's potential roles in water and sanitation management and with efforts both within and outside the United Nations system to integrate women into development projects in the water sector. These include a Task Force on Women and the United Nations International Drinking Water Supply and Sanitation Decade, INSTRAW workshops and training packages and publications, the Department of Technical Co-operation for Development's international seminar on women and water for French-speaking developing countries, held in collaboration with the Government of Mali, and an interregional project for the Promotion of Women in Water and Environmental Sanitation Services of the United Nations Development Programme (PROWWESS). "PROWWESS experience shows that strengthening the links between women and water projects will not only get the pumps built and used -- it will help make development a reality in the fullest sense of the word."

■ **United Nations Development Programme (UNDP), Source:** Special report on the urban challenge, June 1990

This issue of the quarterly UNDP journal is devoted to a special report on the urban

challenge posed by human and domestic wastes and industrial pollution, the lack of adequate water provision and sanitation arrangements. The lead article by Carl Bartone, senior environmental specialist with the World Bank's Urban Development Division, notes current conditions and steps to be taken "Towards a healthier urban environment", concluding with a look at the UNDP/World Bank/UNCHS (Habitat) Urban Management Programme's efforts in that area.

A number of specific articles range from pour-flush latrines in India and a water-and-sanitation programme in Pakistan to a look at the provision of water to small towns in the Philippines and the use of carp to fight reservoir pollution in Morocco. Other articles show the activities of the *Zabbaleen* (garbage collectors) of Cairo and the alarming spread of filariasis in developing countries. The range of activities is matched by the range of those collaborating to overcome the problems, from the individual community to such international agencies as UNCHS (Habitat) and the World Bank, from governmental agencies such as India's Housing and Urban Development Corporation and national NGOs such as India's Sulabh International or OXFAM Canada to international NGOs such as the Aga Khan Foundation.

■ **United Nations Educational, Scientific and Cultural Organization (UNESCO), UNESCO Courier,** January 1991

The January 1991 issue of this journal is on the topic "Cities under stress". As the editorial concludes, "Cities everywhere present increasingly striking contrasts. Though they may produce much of a country's wealth, they also bear the brunt of its poverty. It is high time to mobilize this wealth to create urban centres for people to live in, to return the city to those who live in it. Many city-dwellers deploy indomitable forces of ingenuity, tenacity and solidarity in a struggle for survival. These energies must be tapped if we are to avert tragedy and create a bright urban future."

The following articles focus on the urban experience and the role of urban planners, the development of third-world cities and the new urban policies they require, and, finally, the conservation and revival of historic districts ("What future for the urban past?")

Then case studies on Bucharest, Leningrad, Chandigarh, Berlin and Lima present the challenging problems which urban planners face today in both planned and "spontaneous" cities, the latter in quotation marks because such cities as those put up by Lima's squatter communities show "a social organization comparable to that of conventional society, ... a viable solution to the problems of popular housing."

■ **UNESCO Sources:** "Towards the Resourceful City", July/August 1990

This issue opens with a quotation from Claude Levi-Strauss under the heading "Cities: 'The supremely human achievement'", consisting of extracts from "Tristes Tropiques" in which the noted social anthropologist states that "the town, in both its development and its form, belongs simultaneously to biological procreation, organic evolution and aesthetic creation. It is at one and the same time an object of nature and subject of culture; an individual and a group; reality and dream; the supremely human achievement..."

The people section interviews Tjeerd Deelstra, the urban planner who deplores most modern town planning and stresses the need for new approaches for more sustainable cities, with alternatives to massive sewer systems and car-based transport. The founder of the International Institute for Urban Environment in Delft, he proposes new models. "A future African city, for example, may be a collection of villages -- a more decentralized system taking cultural differences into account and maintaining the 'soul' of the place."

Following a general introduction to the topic, specific articles cover UNESCO's efforts to make cities more self-sufficient and pleasant habitats -- by making best use of resources and cutting pollution, introducing innovative and cheap methods of food production for the urban poor, creating a more ecologically balanced and natural habitat, and safeguarding the cultural wealth that gives a city its soul.

■ **United Nations Volunteers, UNV News,** No. 52 (December 1990)

"Why have the urban poor been so neglected?" is the question raised in this issue of the journal of the United Nations Volunteers. It describes how their 1990 Special Consultation on "volunteer participation in working with the urban poor" highlighted the key role that those in low-income urban areas play in their own development. The experience of such United Nations bodies as UNCHS (Habitat) offered many lessons, and the Consultation agreed that a community-based approach provided a sound basis on which to work out individualized practical solutions.

As another article put it, "They're not going to go away". Thus the need for a constructive realignment of relationships among those working with and for the urban poor -- governments, self-help groups and NGOs. A practical example is provided by a Government of Jamaica/UNICEF project in Jamaica, which includes day-care programmes for children, leadership training, basic sanitation, health education, mother-and-child health programmes, and income generation. The services of the UNV volunteer there have now been extended for a third two-year period to include street children, child labour, training and employment opportunities for disabled women and teenage mothers, and the establishment of a new system to identify and monitor the condition of the most vulnerable groups within the urban community.

■ **Waterlines,** July 1990

This issue of the journal contains two articles on appropriate sewerage in low-income countries. The first, "Sewerage for low-income communities in Pakistan" by Kevin Tayler, describes how schemes involving local people and including on-plot improvements have introduced appropriate sewerage to low-income communities in Peshawar and Lahore, with particular reference to the St. Michael's Housing Society scheme in Peshawar and the North-east Lahore Upgrading Project. Shallow sewerage systems with a minimum gradient have worked in the short term, though there may be hydrogen sulfide build-ups in the case where the gradient is 1/800. (UNCHS (Habitat)'s 1986 publication The Design of Shallow Sewer Systems argues for a minimum gradient of 1 in 167.) Tayler concludes that "Perhaps the most important lesson is that there is no short-cut to improved sanitation. When sewers are laid, people must be involved and on-plot improvements must form part of the work."

CALENDAR OF EVENTS

APRIL

PUBLIC/PRIVATE PARTNERSHIPS IN URBAN MOBILITY, Paris, France, 3-5 April 1991
(Information from: Convergances, PPM 91, 120 avenue Gambetta, 75020 Paris, France)

THIRTEENTH SESSION OF THE COMMISSION ON HUMAN SETTLEMENTS, Harare, Zimbabwe, 29 April-8 May 1991
(Information from: UNCHS (Habitat), P.O. Box 30030, Nairobi, Kenya)

MAY

International Water Resources Association (IWRA), VIIth IWRA WORLD CONGRESS ON WATER RESOURCES: Water for Sustainable Development in the 21st Century, Rabat, Morocco, 13-18 May 1991
(Information from: VIIth IWRA Congress Secretariat, Administration de l'Hydraulique, Direction de la Recherche et de la Planification de l'Eau, rue Hassan Benchekroun, Agdal-Rabat, Morocco)

SIXTEENTH SESSION OF THE UNITED NATIONS ENVIRONMENT PROGRAMME (UNEP) GOVERNING COUNCIL, Nairobi, Kenya, 20-31 May 1991
(Information from: UNEP, P.O. Box 30552, Nairobi, Kenya)

JUNE

Royal Society, MEETING ON TECHNOLOGY IN THE THIRD MILLENNIUM: HOUSING, London, U.K., 11 and 12 June 1991
(Information from: Scientific Meetings Secretary, The Royal Society, 6 Carlton House Terrace, London SW1Y 5AG, U.K.)

METRO WORLD 1991: International Conference on Urban Environment/Economic Development Issues, Toronto, Ontario, Canada, 15-20 June 1991
(Information from: Jennifer Dickson, Manager, Inter-Governmental Affairs, Economic Development Division, Municipality of Metropolitan Toronto, 390 Bay Street, 4th Floor, Toronto, Ontario, Canada, M5H 3Y7)

30th WORLD CONGRESS OF THE INTERNATIONAL UNION OF LOCAL AUTHORITIES: "Environment, Health and Lifestyle", Oslo, Norway, 23-27 June 1991
(Information from: XXXth IULA Congress, 41, Wassenaarseweg, P.O. Box 2509 LP, The Hague, The Netherlands)

INTERNATIONAL CONFERENCE ON INNOVATIVE RURAL COMMUNITIES, Charlottetown, P.E.I., Canada, 23-26 June 1991
(Information from: Floyd Dykeman, Director, Rural and Small Town Research and Studies Programme, Mount Allison University, Sackville, N.B. ECA 300. Tel. 506-364-2394)

INTERNATIONAL HOUSING RESEARCH CONFERENCE on "Housing policy as a strategy for change", Oslo, Norway, 24-27 June 1991
(Information from: Congress Secretariat, The Oslo Housing Conference 1991, Norwegian Building Research Institute, A/S Informa-Congress Dept., P.O. Box 99, N-1341 Bekkestua, Norway)

JULY

International Academy of Architecture..., SIXTH WORLD BIENNALE OF ARCHITECTURE, Sofia, Bulgaria, 2-6 July 1991
(Information from Union of Bulgarian Architects, 1E. Georgiev str., Sofia 1504, Bulgaria. Tel. 463109. Tlx 23569 Arch BG. Fax 359 2 465132)

UCLA INTERNATIONAL CONFERENCE ON THE IMPACT OF NATURAL DIISASTERS: Agenda for Future Action, Los Angeles, California, United States of America, 10-12 July 1991
(Information from: UCLA International Conference on the Impact of Natural Disasters, UCLA, Los Angeles, California 90024 USA)

Institute of Advanced Architectural Studies, University of York, THIRD YORK WORKSHOP ON SETTLEMENT RECONSTRUCTION AFTER WAR, York, U.K., 22-24 July 1991.
(Information from: Institute of Advanced Architectural Studies, The King's Manor, York YO1 2EP, United Kingdom. Fax 0904 433949)

AUGUST

THIRD SESSION OF THE PREPARATORY COMMITTEE FOR THE UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT (UNCED), Geneva, Switzerland, 12-30 August 1991
(Information from: UNCED, 160 Rue de Florissant, P.O. Box 80, CH-1231 Conches, Switzerland)

Research Committee on Housing and Built Environment (ISA), INTERNATIONAL RESEARCH CONFERENCE ON HOUSING STRATEGIES FOR THE 90s, Chandigarh, India, 25-28 September 1991
(Information from: Guru Ramdas School of Planning, Guru Nanak Dev University, Amritsar-143005 East Punjab, India)

SEPTEMBER

International Association for Housing Science, XIXth WORLD CONGRESS on "Habitat for the 21st Century", Ales, France, 23-27 September 1991.
(Information from: IAHS, P.O. Box 340254, Coral Gables, Miami, Florida 33134, USA)

International New Towns Association, 1991 INTA CONFERENCE on "Urban renewal -- striking the balance", Belfast, U.K. 22-24 September and Dublin, Ireland, 25-27 September 1991
(Information from INTA/AIVN International Secretariat/Secrétariat Général, Nassau Dillenburgstraat 44 2596 AE, The Hague, The Netherlands)

OCTOBER

Information Centre for Regional Planning and Building Construction (IRB), INTERNATIONAL BUILDING INFORMATION CONGRESS, BI'91, on "Building and planning needs information, "Stuttgart, Germany, 7-11 October 1991.
(Information from: IRB of the Fraunhofer-Gesellschaft, Nobelstrasse 12, D-7000, Stuttgart 80, Germany)

THIRD SUMMIT CONFERENCE OF MAJOR CITIES OF THE WORLD, Montreal, Canada, 15-17 October 1991
(Information from: Luc Doray, Third Conf. Coordinating Office. Tel. 514-872-3114. Fax. 514-872-8430)

Commonwealth Association of Planners:INTERNATIONAL CONFERENCE FOR PLANNERS AND HOUSING OFFICIALS ON THE UNITED NATIONS GLOBAL STRATEGY FOR SHELTER TO THE YEAR 2000 -- "Developing enabling strategies in shelter: Local involvement and planning -- an action-oriented approach", Ottawa, Canada, 17-19 October 1991
(Information from: CAP Secretariat, 404-126 York Street, Ottawa, Canada K1N 5T5. Tel. 613-233-2105. Fax 613-233-1984)

NOVEMBER

University of Toulouse le Mirail, Pluridisciplinary Institute of Research on Latin America and Latin America Network, INTERNATIONAL SYMPOSIUM on "Big cities of Africa and Latin America -- urban facilities and cultural practices", Toulouse, France, 27-29 November 1991
(Information from: Centre de Promotion de la Recherche Scientifique, Université de Toulouse le Mirail, 5, Allées Antonio Machado - 31058 TOULOUSE CEDEX Tel. (33) 61 50 45 95. Fax. (33) 61 50 42 09)

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UNCHS HABITAT NEWS is the official newsletter of the United Nations Centre for Human Settlements (Habitat). It is published three times a year and distributed free of charge.

News of forthcoming events in human settlements which may be of international or regional interest are welcome, and should be forwarded to the Editor, UNCHS HABITAT NEWS.

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NGO News

NGO NEWS ON HUMAN SETTLEMENTS (an insert to UNCHS HABITAT NEWS) serves as a forum for non-governmental organizations (NGOs) concerned with issues related to human settlements at the international and national levels. Most of the information contained in NGO NEWS is supplied by the Habitat International Coalition. The views of NGO NEWS do not necessarily reflect those of UNCHS (Habitat) or of the United Nations.

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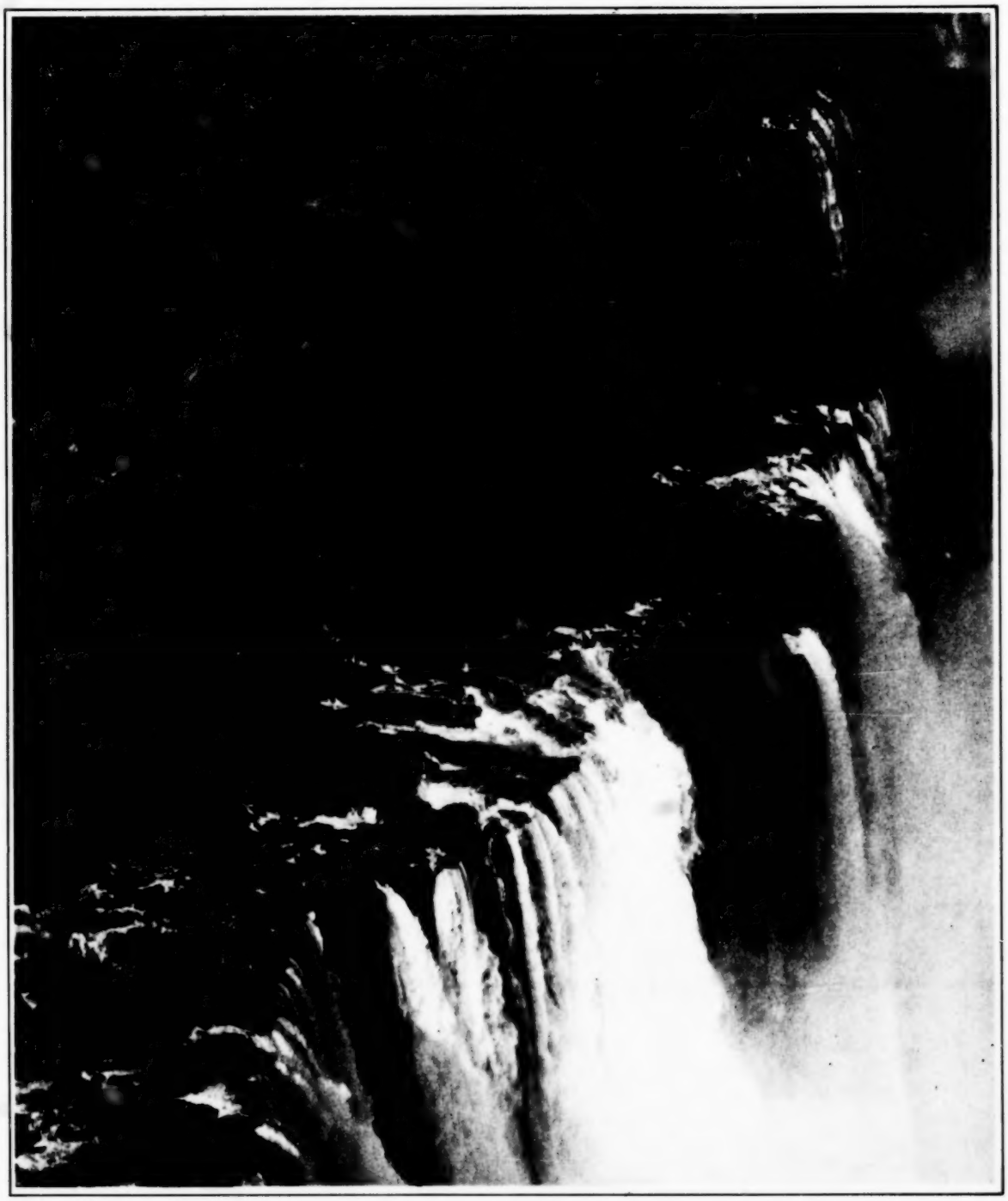
Cover artwork

Front cover: Logo of the Harare International Conference Centre, venue of the thirteenth session of the Commission on Human Settlements; a complex version of the elegant high-raked bracket, or "ang fou-kung" used to support roof purlins in Qixian Temple, used as the Architectural Society of China's logo; artist's impression of the port of Carthage in the second century B.C. (illustration by H. Hurst in January 1991 issue of *World Development* on UNCHS (Habitat)/UNDP project in Tunisia); outside the Conference Centre complex, Harare.

Back cover: Victoria Falls, known also as Mosi-Oa-Tunya, or "The smoke that thunders", Zimbabwe.

ISSN 0255-271 X = UNCHS Habitat News



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